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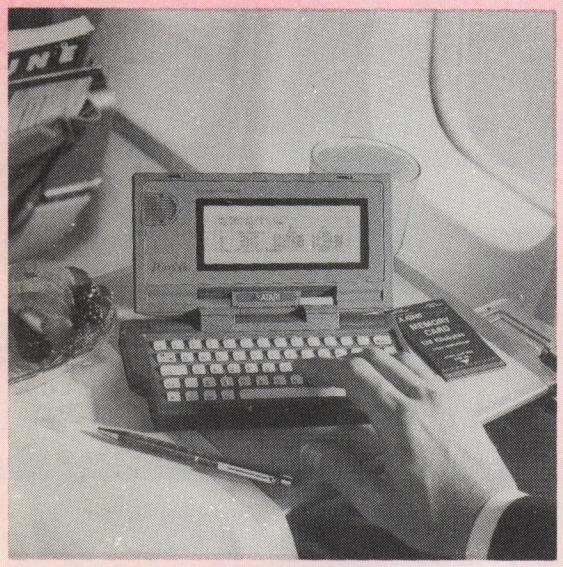
Current Notes

Vol. 9 No. 10 December 1989



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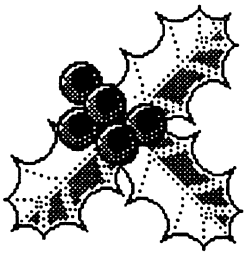

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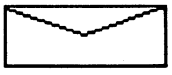

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Special Reports

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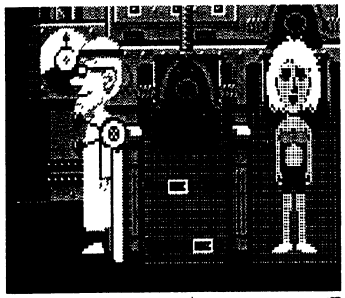

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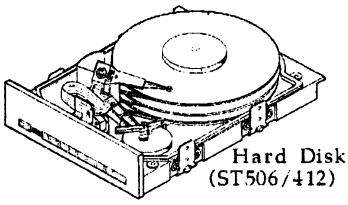

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Atari News ♦ Commentary

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ATARI DESKTOP PUBLISHING

Current Notes is produced on an Atari **Mega ST4** with an Atari **SLM804 Laser Printer** using Timeworks Desktop **Publisher ST.** Some artwork is scanned in using the **Navarone Scanner** and some ads are produced with **Calamus** or **PageStream**.

KEY:

- ❑ ST–related review or article.
- ■ XE/XL related review or article.
- • Machine independent article.

From the Editor's Desk:

To end 1989, "The Year of Atari," we have a very special issue for you. Four pages bigger than normal, the December issue is filled with a record number of CN "Specials."

First of all, everyone is anxious to hear what happened at COMDEX '89. Robert Goff reports on the latest Atari unveilings. More new products and developments for NEXT year: the TT, the ST^E, the Stacy, and a new developer support program. It would be great to be all excited, but Atari has had lots of announcements and little performance. Even the strongest Atari supporters have a wait and see attitude. As an all-Atari publication, *Current Notes* certainly hopes Atari delivers on its new set of promises. But actions speak louder than words; we will wait and see also.

One of the strongest advantages of the ST/Mega line is the ability to run Macintosh and IBM programs via emulator software and hardware. Some users have also discovered that they could take disks right out of the IBM computers or clones they had at work, bring them home to their Atari computer and still be able to read the disk. Not only could they read the disk directly, but some of the files could even be loaded into ST word processors, edited, and then taken back to the PC where they were then loaded into PC word processors for further work. Does that make the ST compatible? If you've ever wondered about the issue of compatibility, you will enjoy Greg Csullog's excellent discussion of the ins and outs of computer compatibility in "Is My Atari IBM (Mac) Compatible?"

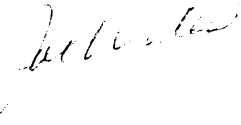
Do you enjoy fantasy games? Would you like to give one a try but don't know where to start? Then Robert Millard's second annual "Best of the Quest" feature is just what you need. Once more, Bob has called together a panel of "experts" to evaluate the current crop of ST computer role-playing games. Each game is rated according to graphics, content, and difficulty. I was personally so impressed with the reputation of *DungeonMaster* that I actually went out and got it even though I haven't yet had the time to play one of these games (my wife actually solves crossword puzzles--maybe I can get Joyce to play it.) *DungeonMaster* won 1st place in seven categories: Best Game, Best Graphics, Best Magic System, Best Monsters, Best Individual Monster, Best Sound, and Best Interface. With a record like that, how could I not try it out?

Anyone who has used a hard drive will find it difficult to ever go back to using a disk-based system. The enormous storage capacity provided by hard drives, from 20 megabytes to 100 or more megabytes on large systems, and the speed of operation make using your computer much more enjoyable. However, the more information you pack into a hard drive, the more you have to lose when something goes wrong. If your 30 Mb drive is filled, it would take over 40 double-sided disks to back all that up. Do you know how long it takes to format and fill 40 plus DS diskettes? Isn't there a better way? To help answer that question, John Barnes provides a survey of the various technologies currently available for backing up your hard drive. He also looks at some of the PD and commercial software available for this task.

This issue, as usual, is produced using Timeworks *Publisher ST*. Timeworks, however, doesn't seem particularly interested in the Atari market and, I suspect, we will be switching over to a competing product sometime next year. There are quite a few excellent programs that bring desktop publishing to the Atari owner. Most readers are familiar with *PageStream, Calamus,* and *Fleet Street Publisher.* Atari has just released *DeskSet II.* Another contender many of you may not be familiar with is *TEX*. *TEX* can produce some very fancy output, indeed, as illustrated by this month's article on *TEX* written by Horace Mitchell and printed using the *TEX* system. For the cost of five (or fewer) PD disks, you, too, if you want to invest the time in learning, can produce excellent typeset output on your ST.

Excellent output usually requires an excellent printer. For all but the most professional of publications, 300 dots per inch, the output performance of laser printers, is certainly adequate. Laser printers, however, even the Atari printer, are not inexpensive. The HP DeskJet, reviewed by Jim Wallace in these pages in June of 1988, provided a more economical answer for those who needed high quality output. Since then, HP has introduced a new, improved, inkjet printer called the DeskJet Plus. Jim returns to CN once more to fill us in on the benefits provided by the new DeskJet Plus. Many readers will also note with interest that Jim has been able to combine his Atari with the HP to establish a home "printing" business which has more than paid for all his computer and printer expenses.

Of course, the above are just our "specials" for this month. There is a lot more in the pages that follow that, I hope, you will find interesting and stimulating. Remember, the next issue is one of our double-month issues that won't actually appear until the beginning of February. So, this December issue has to last you two months. Enjoy the holidays and your Atari (and all the new gadgets you will undoubtedly get for Christmas). See you in 1990.



December, 1989

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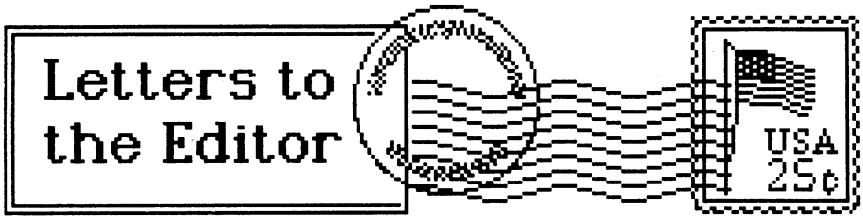

About .ACCess! Review

Dear Joe,

As the owner of Rock Digital (the makers of *.ACCess!*), I feel the need to respond to the review of *.ACCess!* presented in the November issue of *Current Notes*. Before I begin, I would like to state that I have no hard feelings for Andrzej Wrotniak (the reviewer of *.ACCess!*). In fact I met him at one of the parties at the AtariFest 89 held in Fairfax, Virgina October 7th and 8th. He seemed very nice and was kind enough to review *.ACCess!* in the first place. He also stated that it would be a "no holds barred" review; he would be tough. No problem, I agreed to supply a copy of *.ACCess!* and he promised some feedback (before the review was sent), so that we would have a chance to make necessary changes Andrzej felt important for the program's success and he would have the latest information on updates and so forth.

Reviews are the life and death of a program. One bad review and you're done. Most reviewers understand this and seldom criticize a program "publicly" without at least a call to the author or company producing the package. I know, not only because I've reviewed a considerable number of other programs, but other reviewers of *.ACCess!* have responded this way.

First, I must comment on some things that were *NEVER* said by me or the manual. First and most importantly, the **desk accessory version** of *.ACCess!* does NOT run programs! It never did and, quite honestly, we don't see any support for this option in the near future. The TOS version of *.ACCess!* does. Both versions are supplied in the package.

It was NEVER stated that the desk accessory version ran programs, NEVER! It must have been some party if I was saying that! It WAS stated that *.ACCess!* is programmed in such a way that if an attempt is made to run a TOS program from the desk accessory version, it MAY work. The key word is MAY. I must have stated this a least a million times during the show. This, I agree, is probably my mistake. Most people assume that if you say MAY, that means it must work. Big mistake on my part, I apologize.

In any event, because the desk accessory version did run "some" TOS programs, we (i.e. Rock Digital) decided to leave the option available but unsupported. It is quite a simple matter to disable the execution of other programs. But since, on occasion, it does work, we wanted to leave the option open. It is stated this way several times thoughout the manual. Because of the review, we may cut it out completely (a little less power, a lot less hassle with reviewers). Sorry ... *.ACCess!* owners. Your next update won't have that capability.

In the review, the way one paragraph ends really bent me out of shape. This is the way it read:

> After installing *ACCess* as a desktop accessory I started trying it out. The disk operations seem to work alright: I can view and change the directory, rename files, do many other things, all in a neat GEM window while being inside another program. I may have some reservations here, but they are minor. On the other hand, most of the disk operations (including "wildcard" ones, as e.g. "copy everything with extensions .DOC to drive D:") can be as easily performed from the *Universal Item Selector* so no big deal.

So no big deal! Maybe I'm missing something here, but does the *Universal Item Selector* run in a GEM window? I think not. Running in a GEM window means .ACCess! can stay resident on the desktop when other programs are being used! Does the "Universal Item Selector" run batch files? No. Here's another comment that was made:

> A command-line shell without the program-running capability is not worth much.

Is that an opinion or a statement of fact? Does the *Universal Item Selector* run programs? No. Don't get me wrong, I LOVE the *Universal Item Selector*. I think it is possibly the best utility program written for the ST. But let's not compare apples to oranges. If you really want to compare (as the reviewer obviously does), let's compare feature for feature!

As the table (on the next page) clearly shows, you really ARE comparing apples to oranges. You might note, we haven't even discussed the batch processing capability of .ACCess! and the host of functions supporting it. Don't get me wrong, I'm not cutting on the *Universal Item Selector*, it's just a different kind of program. If you want the ease of pointing and clicking to manipulate files, the Universal Item Selector is for you. But, if you want the power of a GEM-based command line interpreter, consider .ACCess!. It's been my experience at the shows, that most people buy both (thank heavens).

I've also found that .ACCess! can be either a hot or cold product for different people. Some people take a look and say, "Yuk, MS-DOS, Unix, snicker, snicker," while others say "I've been waiting for something like this since the ST came out." Needless to say, it's easier to sell *.ACCess!* to the second group of people. I find

Table: UIS II and .ACCess! Functions

FUNCTION	UIS II	.ACCess!
Display directory	X	X
Change directory	X	X
Copy file(s)	X	X
Move file(s)	X	X
Rename files	X	X
Delete file(s)	X	X
Create folder(s)	X	X
Delete folder(s)	X	X
Get disk statics	X	X
Set/Unset file attribute(s)		X
Create text files		X
Display text files		X
Touch file(s)		X
Display system variables		X
Set system variables		X
Concatenate files		X
Display/Set current time		X
Display/Set current date		X
Resize display area		X
Change displayed font size		X
Look at results of previous commands		X
Keep "shell" resident on desktop		X
Process batch files		X

people who love it and people who despise it. But almost everyone finds it interesting. *.ACCess!* is the first and only GEM window based command line interpreter. I'm sure someone out there is copying our idea right now! Any bets?

Anyhow, back to the review. The manual is lacking in some areas. Yes it is, I fully agree. That's why we are sending out a FREE update (complete with updated program containing even more commands and a NEW manual) to all registered *.ACCess!* users. If the reviewer of *.ACCess!* would have contacted me (as promised) before the review was released, he would have known. The result, we get burned.

Back to the manual. When the program was shipped in October, the biggest weakness in the manual was in the area of batch file creation and execution. We knew this but still decided to ship on the basis of the table given above. *.ACCess!* outperforms anything in its class at ANY price for the raw interactive commands alone. We sold *.ACCess!* for $19 at the show and now we are *giving* away a FREE update. Rock Digital quite literally did not make a dime on the first 150 copies sold (in fact, we lost some).

Our goal is to establish a high quality program and outstanding customer support, all at a ridiculously low price (we figure we'll make it up on volume, later). It should be noted that several *.ACCess!* users were quite willing to pay a $5 to $10 update fee. We opted to make this one free.

Douglas Hodson

The Support Cop-Out

Dear CN Editor:

We users in the ST community are accustomed to the usual information card which accompanies purchased software. This card frequently doubles as a warranty card and also, supposedly, a two-way street to inform purchasers of upgrades.

It is not uncommon to also see such support statements as:

"Check in with our section on [GEnie, Delphi, Compuserve] for the latest information on updates, bug fixes, etc."

What I want to tell the software vendors is "Guys, the system is not working!" As far as announcing revisions to programs, the buyer is left out in the cold. From talking to many users, it appears to me that few, if any, mailings concerning revisions are going out to users. And how are we to find out what the new revisions are? Yes, there is a list in the *Atari Explorer*, but suppose you don't have a subscription? And yes, you may read about revisions in a magazine such as *ST Informer* or hear about them from friends, but that is *not* technical support. An alternative, offered by some vendors, is to have the original disk returned to them every quarter for updates/bug fixes/revisions. This is certainly better than nothing, but frequently the "update" is so minor with so little new that it really wasn't worth the time or the postage.

Now the biggest problem is what I refer to as the Online Cop-Out. Somehow, vendors to the ST community feel that if they maintain a section on one of the telecommunication services that that is technical support, and by inference, that with that their obligation to purchasers is satisfied. This approach to service appears to be predicated on some sort of assumption that everyone in the Atari community belongs to every (or at least one or two) online service, and therefore has access to all this support information. Gentlemen (or Gentlewomen), this is not a valid premise! A quick informal survey of our user group shows that only a few of the ST users belong to an online service, and that of those who do belong, only about half use it frequently. I suspect that this also holds true for a large number of the Atari user groups around the country. The message is that the information is not getting through. Also, the purchaser should not have to pay phone charges or subscribe to magazines to find out information about software he has purchased.

I would like to call for increased mailings (a simple postcard will do) from vendors as to updates as the only true reliable source of information. The alternative is the current vacuum which just leads to further disenchantment and resentment on the part of the ST owner who purchases software.

Sincerely,
H. Earl Hill

pcDitto II ?, TT?, STE?, Lynx?, Portfolio, Comdex Surprises? And.....?

ST UPDATE by Frank Sommers

Ambivalence & Dedication

As everybody knows the computer industry's remarkable annual growth is past. This year's estimated 20% annual growth will likely fall back next year to a normal 10%. That projection seemed to dull the industry's levity at the Computer Dealers' Expo in Las Vegas 13–17 November. The mood was flat, both at the parties and in the majority of the booths. Computer hype had hit a wall called "Reality."

Yet, Atari, whose U.S. sales growth had gone the other way this year, appeared to have generated a bit of hope, according to some, if not all of their staunchest cynics. Atari had hoped that their "surprise" announcement, that developers no longer had to buy the expensive developer's kit to qualify for the technical info required to write programs for the new machines, would attract developers and thus, hopefully, new dealers. Whatever pluses there were for Atari at the show, and there were several, the dealer "picture" was not one of them. The average of estimates was that Atari had lost another 20% of their dealer cadre this year, bringing them close to the 150 number.

But there was the new line–two brand new machines in all their pristine beauty and attracting attention (see Robert Goff's extensive first hand report on Comdex). Delivery dates and prices were vague. Word in Europe is that the TT/Unix will sell for $5,000 and be available in February or March. Word in the U.S. is that the TT without Unix will start at $2,000 for 1–meg without monitor and rise to $3,000 for a 4–meg machine, adding another $1,000 for monitor and hard drive. They will probably not hit until the 2nd quarter, despite Atari's announcement that dealers would have it in the lst.

Was the TT a plus? Those that saw it using its velvet race–horse, 16–bit powerful stride were unanimously impressed. Whether it was Calamus *Outliner*, described by some viewers as one of the most powerful drawing programs that exists for the ST, or *PageStream's* new V:1.8 release, dancing around on the 1024 x 728 TT screen in its multi–colored wardrobe and near instant redraws, or CAD 3–D animating watchers with its remarkable animations, the not so silent admiration was extensive.

Was that all? No, the smirked–at–STᴱ, which prior to the show had been sloughed off as a "sound and graphics upgrade signifying little fury" was also regarded by dealers as a potential "seller." Most earlier ST programs would run on it without conflict, in ST's current color resolution. Current programmers could ply new programs with a pleasing sense of added sight and sound. It also has SIMM sockets, so no soldering is required for memory and other upgrades. The apparent compatibility of the STᴱ devices with current software convinced viewers that Atari was not, as gossip had it, "abandoning the ST."

Economics Of It All

If you but give just a little bit of hope, the loyalty of users and dealers alike to Atari machines is surprisingly easily regained, even after months of wretched abuse, mindlessly dealt out to both groups. Add to that favorable economics, read $$$$, and they can become almost effusive. Example? Atari claims it is selling 70,000 Portfolios a day. There is no clarification as to whether this humongous number applies just to the U.S. or the entire planet. Skeptics suggest 7,000 might be closer to reality. But the central question to dealers and Atari is, "At what profit?" Would you believe that a dealer makes as much on the sale of one Portfolio at $399 as he does on a 520 ST? Well, he does and so does Atari. This makes it easier to understand why Atari is not too perplexed about its fate in the "hostile" U.S. market, where Xmas ST sales will suffer from no monochrome monitors and practically no Mega ST2's, the two big movers of its ST line. If you multiple 365 days times 7,000 Portfolios a day times a unit profit of at least $100, you get a calming quarter of a billion dollars.

Will we see more advertising? Will we see more concentration on U.S. marketing of the ST's? Will we see a marketing surge to propel the new products into prominence? Unlikely, on all counts. After all, when your profits are increasing, the cries of anguish from dealers and users down in the swamps are hard to hear. It's not easy to understand Atari's deep disaffection for U.S. consumers, for if loyalty, dedication, and long suffering addiction to Atari and the ST's could be distilled into energy, you could turn off all the electric generators and the lights would still burn for several years.

Neocept Needs Antiseptic

The developers of *WordUp V. 2.0* have announced that there is a virus in all *WordUp* disks that begin with serial #'s WUP004000 to WUP004250 and WUP100350 to WUP101124. They recommend that owners of the program within that serial # range use a virus killing

program to remove the virus from all their *WordUp* disks. Your hard drives are unaffected. You may send a blank formatted disk and stamps with a self-addressed envelope to Neocept to get a free boot sector virus killing program. (Neocept Inc., 547-A Constitution Ave, Camarillo, CA 93010, Attn: Virus Killer)

The Stream Is on Again

Speed! Speed! Speed! "Oh, but if it only had speed!" was the chant of the *PageStream* devotees, who opined that *PageStream* would be on the top of the pile of DTP programs for the ST, if it could import and print graphics a bit faster, quite a bit, as a matter of fact. Soft Logic has just released Version 1.8. Their claim is that in addition to being a feature laden upgrade that eliminates all of the bugs in V1.52, the most significant improvement is speed. Initial familiarization with the program seems to bear that out. Producing a page with some graphics in *Publisher ST* takes about 20 seconds less than doing it in *PageStream*, a significant improvement in speed. *PageStream* is a power-packed program, and with almost all of the bugs gone and a new 65 mph speed limit, it should challenge the current leader, *Publisher ST,* which is also looking over its shoulder at new releases coming for *Fleet Street Publisher* and *Calamus.* Upgrades can be had from Soft Logic for $25. For 520 ST users with limited memory and no hard drive *PageStream* is understandably preferred over *Publisher ST* and its larger memory requirements.

An Epic Jab at Epyx?

Epyx has announced it will be out of the software business by the end of next year. It has laid off almost half of its staff. It claims that in the future it will focus on hardware. Read game machines. As most of you know, Epyx was involved with Atari in bringing the Lynx to market, and was near euphoric when it arranged for Atari to "market"/sell the first 200,000 machines it produced. In effect, that meant that Epyx had sold the entirety of its projected first production run. Then bang! Something happened. Whispers have it that Epyx was late in getting the Lynx into production and as a result of a "heavy penalty clause" in the contract, paid with its corporate life, i.e. Atari subtracted the penalty fee from its purchase price. A variation is that Atari paid the first of three contracted sums, and then claimed prior to payment of the second bundle that Epyx was behind "contract schedule" and refused to pay any further monies until delivery of the total contract. (Business is War!) With no funds Epyx was forced to turn to a third party manufacturer to complete production for the first run of 100,000 machines. Yet another source reports that the 3rd party manufacturer, discovering that Atari, not Epyx, was the main contractor, refused to produce anything more than the original 100,000. (Victims of Atari's "war" are said to harbor "strong feelings.") You might then ask two further questions. How many Lynx will actually be available for Xmas and where does that leave software for the Lynx, beyond the existing four programs, since Epyx was to be the software supplier?

Nintendos 'R Us

A survey of the local Washington Toys 'R Us stores suggests that those who fear that Atari may become a game company again may jettison their concerns. The handheld Lynx that was designed to blow Nintendo's Game Boy off the shelf didn't arrive in time for the biggest week of the five shopping weeks before Christmas, typically the week between Thanksgiving and 1 December, if it comes to the area at all. (Previous reports had the limited supply restricted to New York City and Los Angeles). Game Boy, which was slow to catch on, is now moving nicely out the door. Though it costs less than half of what the Lynx will sell for, $89 versus $199, Atari's conviction was that Lynx's color screen would win the battle. Store managers suggest that for the Lynx to catch on in the four weeks before Xmas, there will have to be a significant TV ad campaign. Right now people come into the store and in the department in question ask immediately about Nintendo. In fact of all the toys sold by Toys 'R Us (not just game machines) 18 of the top 20 toys are Nintendo's products. In the strictly game machine line 2nd place goes to Sega. The software is there for both products in some quantity.

When queried on how the Atari 2600 and 7800 machines were selling, Chris C. Smith, manager of the local Springfield Toys 'R Us said, matter-of-factly, "The main stream is Nintendo. Atari is definitely in the backwash."

The Pedestal Effect

Poets have described the ascent and decent from The Pedestal in wondrous and oft beautiful terms, as in, "Place a woman on a pedestal and she has nowhere to step but off."

Avant-Garde Systems appears to be suffering from this pedestal effect. Long one of the premier developers for the ST, because they turned out a product when they said they would which also did what they claimed it should, they are now teetering on their well deserved pedestal. Months overdue, pcDitto II is still a will-of the-wisp. Despite the fact that the company's head, Bill Teal, went to considerable lengths not to take orders and people's money before he was sure of delivering the product within a reasonable period of time, even his estimates of what it takes to get a manufacturer to produce were wrong. Subseqently, Teal shipped postcards notifying purchasers that their money and orders had been received and full scale shipments of the IBM emulator would begin by the end of November. A few review copies had been shipped, the card said, and people might wish to read reviews of pcDitto II before deciding

to keep on with their order or ask for a refund. (*Current Notes* cannot confirm that review copies were shipped to any magazines.) Prior to the issuance of the postal alerts, there had indeed been some grumbling. One of the reasons was that Teal had finally given up appearing on Genie to explain the delays. Calls to the company met with an answering message, but no way to leave a number or get a call back. These were the usual signs of the Medicine Man packing his wagon and preparing to depart the town. In this case, they are mistaken. Avant-Garde will return your money upon receiving a request for same. But should you nervously do so, it may be some time before a follow-up order will be serviced, such is the demand for the new emulator. Teal and company honored us earlier with an exceptional product, pc Ditto. Now that they are riding the waves of frustration and professional embarrassment resulting from trying to push a huge company to tool up and fill a small order, we suggest a ration of patience would not be undeserved. We also realize, as the famous Polish freedom fighter turned economist, Lech Walesa, said recently, "... the supply of excuses has been plentiful, but the demand for same is now almost non-existent."

And There It Was!

This wasn't a Comdex announcement or an Atari yes-it's-shipping claim. This was a gleaming, outer-space tinged full back-page of the B.N.Genius Xmas catalogue with Lynx bouncing off the silvery slick hands of an android in a star-studded background. "Wow!" you might say, if it had been an Atari ad. Nothing like that. Just a page of a catalogue promoting a new product, and telling you they deliver everything overnight. But eye catching indeed! It made you wonder what might happen to sales if a few magazines around the country had the same thing, but for the ST's. Labeled as, "New Video Entertainment System Is Your Portable Video Arcade," the ad copy claimed it was four times faster than the competition (unspecified) with dazzling colors, and including one game card, containing *California Games*, i.e. surfing, skateboarding, BMX biking and foot bag (we all know that one). *Gates of Zendocon, Blue Lightning, & Electrocop* game cards can be purchased separately for $39.95. The Atari Lynx, itself, was priced at $199.95 w/o the six AA batteries necessary to run it. When would it be available? How long would you have to wait? Overnight delivery--if you wished to pay the extra $11 for Fed Express. A breathless call uncovered the news that the Lynx was "back ordered with Atari; try again after Thanksgiving." [B.N.Genius: (800) 468-4410]

Rumor, Rumor on the Wall

Who's the longest surviving home computer manufacturer of them all? Commodore, of course, or at least one of them. Two years ago they were all but gone. Cash had run out, loans were due, and IRS suits for back taxes would certainly crush them. And today? Well, they appear to be pulling ahead of the two man race with Atari. Dealers are switching from Atari to Commodore and the Amiga machines. If Atari has a smashing two page ad in Newsweek one month, Commodore follows with a seven-page spread the next; yes, seven consecutive pages in Newsweek. And TV ads are scheduled to total $15-$20 million before Xmas. So, if looks could kill, Atari would be dead.

But there's a nasty little rumor going around the home computer community that like the Leviathan, this is Commodore's last big thrash before it goes out with a bang. Loans are being called, the IRS appeal case for $125 million is likely to go against Commodore, and barring a stunning tornado of sales over the holidays, Commodore is headed for the briny deep. (One estimate is that despite Commodore's sizeable TV ad investment, they will lose $15 million in the last quarter, even if sales increase by as much as 20%.)

Tid Bytes

Adieu *ST Log* & *Analog* -- Apparently, Larry Flynt Publications has decided to cut its losses and *ST Log* and *Analog* are no more. We regret it. They were top of the line in the early days and gave us all much pleasure and information. **Similar Vein** - Hang on, *St Express!* Reports are that their financiers also brought down the curtain on the December issue. Then three of the staff took over; regular subscribers will receive their issues and the magazine is fighting forward. **The Peoples Price** - Atari is now offering dealers 520 ST FM's for $399. That includes one built-in floppy drive and a jack to connect it to your TV. A monocrhome monitor, if any were available, would cost another $150 or a color monitor $300. What it adds up to is about $150 off current prices. Is Atari trying to clean its warehouse before issuing the STᴱ? **A Board That Is A Board** - Jim Allen of Fast Tec and Dave Small of Gadgets By Small are rumored to be conspiring together to turn out a 68030 board for the ST that will run Apple Talk. Project cost about $800, and Fast Tec would take their present board back in trade. How soon? No one knows. **Atari Release Dates** - At least one person at Atari has said they will release no new products this year, i.e. Stacy, TT, STᴱ, Megafile 44, CD-ROM, etc. End of Ist quarter is their current projection for the TT and the STᴱ. Their Comdex literature said the Stacy was already shipping. Look for it in February at the earliest. **A New Laser** - Atari reportedly is ready to unveil a new laser printer for under $1000 in Europe. Possibly a different machine using LED rather than laser technology, and smaller in size?

That's it for 1989. I hope you will all have a wonderful Holiday season. See you again in 1990.

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COMDEX 1989

Atari's lineup for 1990 features the TT, STE, Stacy laptop, and Portfolio palmtop as well as the traditional ST and Mega lines. Atari also announces a new developer support program. Developer reaction: hopeful, but cautious.

by Robert A. Goff

The Hype

I had planned on having this article sent to Joe Waters last night, but Murphy struck (in the form of a dead laptop) and forced me to change those plans. Perhaps it was a good thing, because last night at the top of Bally's hotel, Atari threw its annual COMDEX developer's party. Announced there was the new developer support program.

Now that you've all recovered from hysterical laughter, allow me to outline what this program is supposed to entail:

- A new TOS Development Manager has been hired, Charles Cherry, formerly of Antic Software. For those of you who don't know him, Charles is a veteran of both the 8-bit and ST computers in a variety of roles. He promises that Atari is out to help the developers and that his job is to make sure that it's the right kind of help.
- Developers will be provided the entire listing of registered Atari owners in machine readable format to assist in direct mail marketing.
- Developers will be provided the entire listing of authorized Atari dealers, also in machine readable format.
- Beginning now, all new registered Atari users will receive a free three-month subscription to *STart, Atari Explorer, ST Informer,* and *ST World* magazines. This is an effort to educate the users who purchased their systems for a narrow application such as desktop publishing of their potential in other uses.
- Developers will now be able to purchase development equipment from Atari at 50% off list price.
- Developers must re-register again now and annually from now on.
- Developers must provide Atari with a demonstration version of their programs, and enter their products in an on-line database of all Atari products maintained by Atari. This database and the demonstration software will be made available on-line to potential customers and will be distributed quarterly on CD ROM to dealers. This database program will be called 'Soft-source.' (Does that mean that Atari will be finally releasing the long-awaited CD-ROM drive? Other sources say that the drive is stuck in development, but the reasons stated differ. I sense a weak point in the program.)

When this program was announced, I almost couldn't hear the speeches for the yawns around me. Jerry Pournelle said that Atari was finally sounding like a real computer company, but most of the developers I talked to had a "wait and see" attitude. Indeed, the "look and feel" of Atari seems to have changed since last year, if only slowly. The booth is a lot more polished and professional looking, and there are people packing it most of the time. The Atari people present seem to be a lot happier, with fewer negative remarks. While I think most of us have learned not to expect revolutionary change from Atari, we are seeing some gradual change for the better.

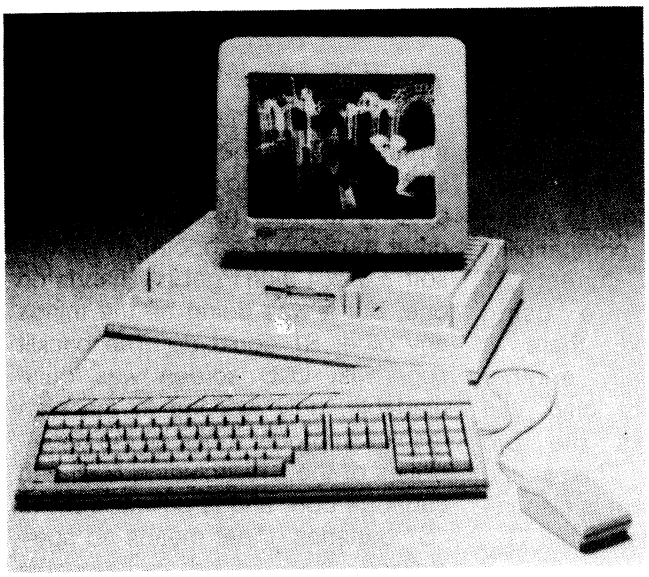
The Hardware

The TT

The least hyped hardware present in the booth, and in my opinion the most worthy of hype, is the TT. "TT" stands for 'Thirty-two, Thirty-two' and means that the machine is built around the Motorolla 68030 CPU running at 16 MHz, with a

Fun Facts About COMDEX

Total exhibition area:	930,000 sq. feet
(The show isn't even over yet, and over 1,000,000 square feet have been reserved for next year. That's more than 30 acres.)	
Total length of aisles:	21 miles
Number of attendees:	115,000
Total man-hours used to set up the exhibitions:	125,000
Man-hours needed to tear down:	50,000



TT - The Atari TT optimizes the speed and power of the 68030 microprocessor and offers users true 32-bit processing capability.

socket for a 68881/2 math coprocessor. (Why not faster? My Atari source said that the faster designs weren't reliable enough to satisfy the Tramiels. Honest, that's what he said.) The baseline machine will be shipped with two megabytes of RAM, expandable to eight megabytes with SIMMs (and expandable further with board-mounted memory), a 30 megabyte SCSI hard disk, a 1.44 megabyte high density floppy drive, and a VGA-compatible monochrome monitor.

Atari says that the TT will run all "well behaved" ST software. In practice, I've been told that amounts to about 75% currently, but as soon as the developers get their hands on them they should be able to correct some of the "guerrilla programming" techniques they used in existing software. I got no information on exactly which 75% they were talking about. The machine will come with TOS in ROM (initially TOS 1.4, but development of the operating system is on-going) and will be supplied with a version of UNIX at extra cost to be booted from disk. The exact version of UNIX was not known, but it is supposed to meet AT&T standards with Berkeley extensions and include a graphic user interface such as X Windows.

The port arrangement is the answer to the complaints ST users have had for the last few years. The TT comes with one parallel, two serial, MIDI, mouse, and joystick connections. In addition, there is a VME-compatible bus slot, an internal and external SCSI port and an external ACSI port. That's right, not only did Atari finally supply an intelligent DMA interface in the SCSI port, but it retained the brain damaged version of ACSI so that we can use our old hard disks and (more importantly) the Atari laser printer. The VME slot will allow connection of network interface cards and encourage makers of current networks to produce software to link in the TT.

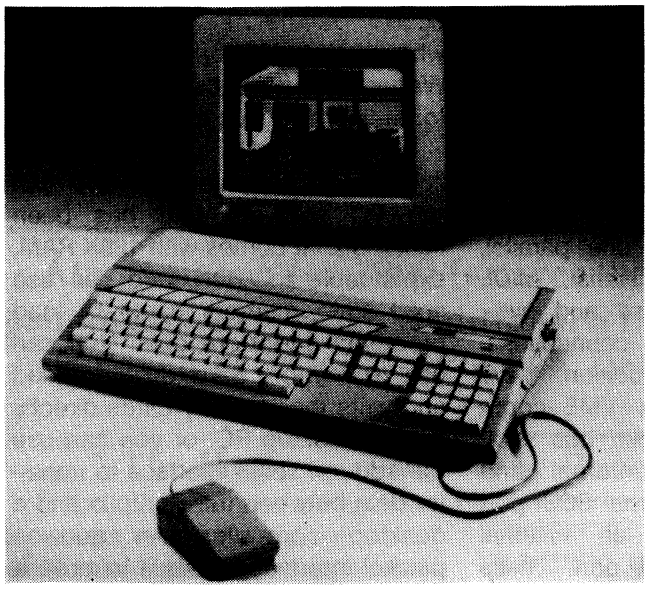
There are six video modes available, the first three being compatible with the current ST modes. In addition, there is a 320x480 256 color mode, a 640x480 16 color mode, and a 1280x960 monochrome mode. All modes but the last can be displayed on a VGA monitor. This graphics capability, and the power of the math coprocessor, will make the TT an attractive platform for graphics applications. And at a target price of under $3,000 for the basic model, I think it will be attractive for a lot of applications. It is supposed to ship in the first quarter of 1990.

The Portfolio

The machine with the most hype is the Portfolio. They are sprinkled liberally throughout the Atari booth and people can't seem to keep their hands off them. I wasn't particularly impressed with what looked like an oversized calculator, but there are a lot of people who disagree, people like Payne-Weber who have bought hundreds for their employees to use.

The Portfolio uses MS-DOS "compatible" commands, and can run PC software that has been "adapted." It comes with 128K RAM, expandable to 640K, and can use solid state memory cards to load programs and store data. You can use a memory card drive to read and write the memory cards directly from a desktop PC, or you can use the add-on serial interface to transfer data between the Portfolio and a desktop computer. An add-on parallel interface allows it to drive a printer.

While there is some public domain software already available, most users are going to have to make do with the built-in applications for a while. These include a flat-file database disguised as an address book, a pop-up calculator, a notepad, and a spreadsheet which is semi-compatible with Lotus worksheets. The Portfolio sells for $399, the 128K memory cards for $200, and the serial interface for $80. Not bad if it suits your purpose. Another handheld computer is being shown here called the "Poqet" computer. At first glance, this machine is impressive and sports an impressive price of $1,995, with 512K memory cards (not compatible with the Portfolio, darn it) for around $500. But the Poqet is not shipping and won't be until they solve some reliability problems with the keyboard and the screen connector.



STE – An enhanced configuration of Atari's ST-series, the STE provides users with extended graphics and sound capabilities.

Looks like Atari finally got in the first punch.

The STE (Enhanced)

The STE is real, it has shipped in Europe, and it will ship in the U.S. as soon as it receives FCC approval, according to Antonio Salermo, VP of Marketing for Atari.

The "enhanced" features of the STE include built-in RAM upgrade capability to four megabytes using SIMMs (finally!), a larger color palette of 4,096 colors, ports for light gun and paddles in addition to the mouse and joystick ports, and true digitized stereo sound. The case looks like a 1040ST with the mouse and game ports on either side of the machine like a 520ST.

The sound system is completely different from the other STs. There are two sound outputs for external amplification and the output can be programmed to about 75% of the quality of CD sound (8 bits versus 12 bits for a normal CD). Sound has also been made a DMA task, meaning that instead of the CPU driving the sound chip to create each individual sound, it gives a command for the chip to generate a series of sounds based on a block of data. The sound chip takes its turn in line to load that data and sends the sound to the output jacks. In the meantime, the CPU has gone on to other, more interesting, tasks. In order to maintain compatibility with current ST software using sound, there is actually another sound chip that works the old way. This sound system is also included in the TT.

Image Systems

The next most impressive hardware achievement I saw in the booth was almost overlooked. SoftLogik was demonstrating its upgraded version 1.8 of *PageStream* on a large format monitor. I assumed that it was one of the many Moniterm monochrome monitors found in the booth, but then I noticed that the *PageStream* document was displayed in color! A second look revealed that the monitor was a 19" NEC Multisync 5 driven by a Mega ST and a new display adapter. It's the Ultra High-Res Display Adapter from Image Systems of Hopkins, Minnesota, and produces 1024x768 in 16 colors from an expanded palette of 4,096. The display was as clear and crisp as the monochrome display on my SM124. The version in use was a beta version, but the flyer indicates the company is taking orders at a price of $800. This device has tremendous potential and the developer should get all the support he needs.

The Stacy

The Stacy laptop was well represented at the booth, demonstrating everything from word processing to MIDI (there was always great music in the booth) to Microsoft *Excel*. I didn't get my hands on one, but it was doing all the things any other ST could do. The backlit supertwist LCD screen was quite readable, only working in the high resolution mode. It has all the capabilities of the ST, including MIDI and cartridge port, and is powered by 12 "C" batteries. (That means no specialized, high priced rechargeable battery packs to buy, but maybe a somewhat shorter life as well. No indication of whether NiCd batteries could be installed and recharged using the AC adapter.) Weight: about 15 pounds without the hard disk. Battery life: about 3 hours for the two megabyte version. The four megabyte version is not recommended to be run on batteries at all.

If you were paying attention, I said that the Stacy was running Microsoft *Excel*. No, Microsoft has not ported *Excel* to the ST. It was, of course, using the Spectre GCR Macintosh emulator from Gadgets by Small. The Spectre is not new,

Stacy – The Stacy laptop computer is compatible with the thousands of 1040ST packages already on the market. The portable system includes 1 to 4 MB RAM and optional hard drives.

but the sight of *Excel* running under MultiFinder on a laptop costing less than $2,500 has even the Mac enthusiasts drooling. The **GCR** part stands for **G**roup **C**oded **R**ecording and is the name of the method that the Mac uses to talk to its floppy disks. It's also the reason that it's so difficult to swap disks between Mac and MS-DOS drives--the two formats are violently incompatible.

The Spectre GCR not only interfaces the Macintosh ROMs for use by Mac software in the ST, it allows the ST disk drives to read and write Mac format disks *at full speed*. An ST with a Spectre GCR installed literally does not care what format disk you put into the drive; it automatically compensates.

Then, not happy with that accomplishment, Dave Small became irritated that the second button on the Atari mouse seemed to be wasted in the Mac environment. So in the latest version of the Spectre software, the right button of the Atari mouse acts like a lock-down switch for the left button. Press it once and the Mac Finder thinks that the left button is being held down continuously, press it again to release it. What good is that, you ask? Try juggling the trackball on the Stacy while holding down the left button to pull down the Mac menus and you will find out. I wonder how long it will take the Mac users to copy this idea!

PC Speed

PC Speed, the newest MS-DOS emulator from Germany and marketed by Michtron in the US, was demonstrated. The hardware is a tiny board with a NEC V20 CPU and a half-dozen support chips. It fits on top of the 68000 CPU inside any model of ST (requires some soldering ability), and the software is run from any ST disk. In addition to all of the stuff you would expect, like serial and parallel ports, floppy and hard drives, CGA color and EGA monochrome video, Atari laser printer, it also supports EMS memory for use by things like *Desqview* and *Windows*, direct boot of any flavor of DOS from the hard disk, and will attach a PC keyboard to the MIDI port. (Why on earth would you want to attach a PC keyboard when the ST keyboard works fine? Consider that in the PC world there is a plethora of input devices from bar code readers to voice recognition devices that use the keyboard port for input. PC Speed can use them!)

One interesting thing was that the version shown only supported a serial mouse, meaning that if you want to use a mouse in PC applications you have to use a PC mouse and occupy the serial port. The developer promised that a new version of the driver to support the Atari mouse would be shipping soon.

Avant Garde was noticeably absent from the Atari booth. Hopefully they are at home in Jacksonville working to get pc ditto II shipped. On the other hand, PC Speed is more than worth the extra $100 price. Sorry, Avant Garde, I would prefer to buy American, but this is just too good to pass up.

Other Hardware

ViewTouch Computers displayed their touch screen **point of sale systems** that provide automatic and integrated ordering, inventory control, payroll calculation, and general ledger functions.

A German company called IBP displayed their ST-compatible **industrial control systems**. The applications these computers have been used for are impressive, including complete control of an automated concrete mixing plant.

John Russel Innovations (JRI) demonstrated their **genlock systems** for the ST, allowing overlay of computer graphics onto video images in real time. They also showed their JATO Board, a switchable 8/16 MHz accelerator, new versions of their products to work with the new STE computers, and a new memory expansion board for 520s and 1040s using SIMMs.

Paradise Computer Systems demonstrated a new **network system** called SGS NET that connects up to 32 STs in a server-client configuration. The network interfaces with the ST via the MIDI port, with cables running to an interface box that sends the signals over up to 1,500 feet of coax cable to the other ST. The network software allows completely transparent access to the server's hard disk, reading files and even running programs without interfering with the foreground work being done on the remote computer. At $160 for the start-up kit and $110 for each additional node, this is an impressive product.

Seymour/Radix displayed their **IMG Scanner** and the **DVT VCR** Hard Drive Backup System, neither of which were new products.

Software

Wordflair

There was some very exciting software shown this week, enough to renew my enthusiasm about the Atari line. The program with, what I think will be, the biggest impact is called *Wordflair*.

Wordflair was shown at the World of Atari show in Anaheim several months ago and, at the time, it looked like just another word processor. I was wrong. *Wordflair* calls itself a "document processor," but that name really doesn't describe the power in the user interface Blue Chip International has come up with. The interface is object oriented, meaning that each element of the screen is a separate entity with its own properties and relationship to other objects. In addition to conventional text, there are calculated objects, like spreadsheet cells, that display a value according to a formula that can depend on any other value in the document. This feature alone opens infinite possibilities in form letters. There are also bar graphs, pie charts, and line graphs that can be separate or linked with calculated

objects so that changing one value not only adjusts the displayed number, but the graphical relationship as well. And, of course, it will also incorporate GEM and IMG files as illustrations. I think that "object oriented word processing" will be the most powerful concept in future publishing programs, and *Wordflair* has it now at a price of $99 ($79 introductory price).

Calamus Outline Art

ISD demonstrated the new *Calamus Outline Art* object oriented drawing program. This program isn't particularly revolutionary, but it is significant in that it fills a hole in the suite of tools available to the desktop publisher on the Atari. *Calamus Outline Art* is as powerful a drawing program as I've seen on either PC or Mac, allowing flowing text along a path, stretching images, projecting onto a three dimensional surface, rotating, skewing, slicing, dicing, and making julienne fries. The program produces files in Calamus vector graphic format which can be used both in the *Calamus* desktop publisher and in *DynaCAD*.

DynaCAD was also demonstrated, running both on the Atari TT and the Atari Business Computer (ABC, a 286 MS-DOS machine) in their new PC version. *DynaCAD* was certainly showing off the speed of the TT, with screen redraws of 11 seconds on the TT versus 13 seconds on the 286 machine equipped with a math coprocessor.

Informer II

The other program that caught my eye is called *Informer II* from Soft-Aware. Anyone familiar with *Regent Base* will think *Informer II* very familiar, with movable data input boxes and customizable screen formats. Indeed, *Informer I* was marketed by Regent Software for some time. *Informer II* is characterized by the author as an "almost relational" database. It provides the features of a relational database most useful to a low-end user without the complexity needed to set up and operate a relational database. But the most important part to me is the ability to link an image file to a field of the database, effectively producing an image database. This has been something long awaited on the ST.

Other Software

In addition to *PageStream* version 1.8 (which was a minor upgrade) and *Calamus*, Atari was demonstrating its *Deskset II* desktop publishing program. Its screen display is smooth and the interface is at least no more complex than *Calamus*. G.O. Graphics was also displaying a product called *TDO*, a direct interface between *Deskset II* and a Compugraphic typesetter.

Abacus was demonstrating a new drawing program called *BeckerCAD*. It is a two dimensional CAD program featuring automatic dimensioning, scripting language (like AutoCAD), and PostScript support. At $400 list price, this seems to be a contender for the middle CAD market. Abacus was also displaying their line of books for the Atari line, including a new book on the Portfolio.

Migraph was present demonstrating *TouchUp* and their hand scanner, but the real attention was in the Xerox booth where Migraph introduced their version of *TouchUp* for the PC. It's designed to run under GEM on the PC, alongside the *Ventura* page layout program. This allows *Ventura* users to edit and save their clip art in Ventura's native IMG format.

Electronic Arts displayed several games, and First Byte demonstrated their line of educational software. MIDI was well represented, with Dr.T's demonstrating their Tiger Cub software and Thinkware Distributors displaying several other packages.

Conclusion

The tone of this year's show, at least for Atari, is positive. The marketing types are pleased with the performance of the Portfolio and the engineering types are proud of their accomplishments in the TT and STE. There are probably systems available with better speed and graphics, but not at the prices Atari is charging. Today, the name Atari ST appeared on the front page of the COMDEX Daily newspaper in company with Mac and Amiga. Microsoft was saying that MS-DOS computers can now do all the things we have been doing for years. I think that the potential of the ST and TT lines is well established. The problems have been rooted in communication and teamwork between elements both inside and outside Atari. The impression I get from talking to people around here is that those problems are being solved, perhaps slowly, but surely. I guess I'll just wait and see.

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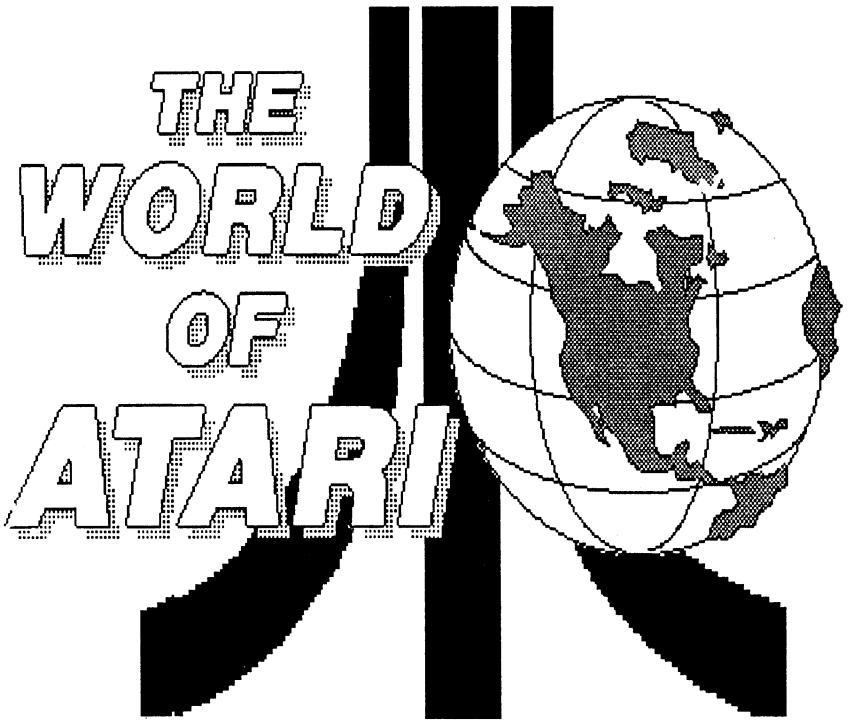

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Is My Atari IBM (Mac) Compatible?

The ST is one of the few computers that can run both IBM and Macintosh programs, but is it compatible? What precisely does compatibility mean?

by Greg Csullog

I want to tell you all about the Atari ST computer's marvelous compatibility with IBM PCs and Apple Macintosh computers. However, to fully appreciate what I am going to tell you, you will need some background information. Do not despair if you find the following information difficult to understand (there are a lot of concepts introduced) because I will summarize the points discussed.

Background Information

One of the questions I am asked regularly by individuals who are considering buying a computer is, "Is the Atari ST computer IBM compatible?" The problem in answering the question is that there are various levels of compatibility to consider. Let's look at these levels.

Microprocessor Compatibility

At the heart of every microcomputer is a microprocessor chip, the "brain" of the system. Different computers may have different chips. IBM PC type computers use Intel chips; the 8088, 8086, 80286 or 80386 chips. Macintosh (except the Mac SE/30 and Mac II), some models of Amiga and the Atari ST use the Motorola 68000 chip). Even though all the various "brains" only understand patterns of ones and zeros (bit patterns), they use different instruction sets that determine how the computer interprets bit patterns as their fundamental language. These differences in instruction sets at the microprocessor level mean that a program developed to run on PCs (with Intel processors) cannot run on a Mac, an Amiga or an ST (with Motorola processors) unless the program is translated from Intel's instruction set to Motorola's. Even when translated, there is another complicating factor; operating systems.

Operating System Compatibility

An operating system is a program or a family of programs that tells your computer how to use its brain to interact with and control other components such as the keyboard, the monitor, disk drives, etc. Just as you have to fill up your brain with knowledge to be able to deal with your world, the computer must have an operating system for its brain to deal with its world and with you, the user.

Operating systems tell your computer's brain how the physical components of your computer (the hardware) are organized and how to run programs (the software) to do useful work. This hardware connection means that even if you translate a program from Intel's instruction set to Motorola's, the program may not run because it is in a different hardware and operating system environment. Even though the Mac, the Amiga and the Atari ST use the same microprocessor, they have different operating systems and a program developed to run on the Mac may not run on the ST or the Amiga (unless you do something called emulation, described later).

Let's suppose you overcome the problems of translation for microprocessor instruction sets and the hardware/operating system differences between two computers. Is the battle over? Not yet--you still have to contend with disk compatibility.

Disk Compatibility

When you buy a box of 3.5" disks you do not have to specify that you want disks for a Mac, an ST, etc. The reason is that the disks are blank when you buy them. The first thing you have to do before you can use a disk is format it. Formatting is the process of putting down electronic grids (analogous to lines on graph paper) that serve to structure the information that is stored on a disk. The Amiga, the Mac and the ST all use different ways of formatting disks. Therefore, once you format a disk on a Mac, you cannot use it on an Atari unless you reformat it for the Atari. Fortunately, the IBM PC and the Atari use the same disk formatting protocol.

So far we have seen microprocessor, operating system and disk incompatibility between major computer systems. Remember the question at the start of this article, "Is the Atari ST compatible with the IBM PC?". The answer is YES and NO. Read on !!!!!

YES, Disk Compatibility

Information stored on Atari disks can be accessed by an IBM PC and vice versa (see note below). Why? As stated before, the ST and the PC format disks the

same way. Does this mean that any file (a block of information) created by an ST can be used by a PC and vice versa? The answer is NO. (Please note, accessed versus used. While the PC and the Atari can read each other's disks that does not mean they can necessarily understand what is stored on each other disks.)

[Note: Until the latest version of the Atari ST operating system (TOS 1.4) was released, disks had to be formatted on an IBM PC or compatible to be usable on both the ST and PC. If they were formatted on the Atari, they could not be read by the PC. Now, full disk compatibility exists so disks formatted on the ST with TOS 1.4 can be used as-is on the PC. For those ST owners who do not have TOS 1.4, the software packages NeoDesk and DCFMT overcome the problem of the earlier operating system versions.]

NO, File Compatibility

Various computer programs save information onto disks in different ways. For example, a drawing program stores picture files one way, a word processor another, etc. Even similar types of programs (such as two different word processors) may store information in different ways. Just as on identical computers (such as two PCs) with the same disks but different word processors you may not be able to exchange information, two different computers (such as an ST and a PC) may not be able to share information because the programs they run may store and retrieve information differently even though the disks have the same format. Above I asked, "Can any file created on an ST be used by a PC?" and the answer was no. If I had asked if some files can be used, the answer would be yes.

YES, File Compatibility

Different computer programs, whether they run on the same computer or different computers altogether, can share information by:

(i) writing/reading to/from disks using the same file structure. For example, LDW on the Atari, LOTUS on the PC and EXCEL on the Mac can all read and write LOTUS type data files. Therefore, if you can get a LOTUS file transferred from a PC disk to a Mac disk, EXCEL can use a LOTUS data file.

(ii) having importing/exporting functions to translate information from one file format to another.

For example, data from a spreadsheet program can be exported to a database format file for use by a database program.

(iii) reading/writing information in some "neutral" format that all the programs can understand

For example, most word processors can write and read standard text files; referred to as ASCII files (American Standard Code for Information Interchange). Using ASCII format allows you to read your text into just about any word processor around on any computer.

YES, Program Clones

We have seen that programs can share information in a variety of ways. However, merely sharing information is not enough. You should not have to learn two programs on two different computers just to use the data that is shared by two programs. That is why software developers produce clones (look-alike programs that work virtually the same as the original).

For example, LDW is a LOTUS spreadsheet clone for the Atari ST. While LOTUS (a PC program) is not available for the ST, LDW runs just like LOTUS so you do not have to learn two different programs. If you know how to use LOTUS, you know how to use LDW.

Therefore, compatibility can be at the program level with software clones that read the data files of original software and run like the original software. Many PC programs have clones on the Atari ST (including dBASE, LOTUS, GEM Draw).

YES, Ported Software

In addition to cloning, developers of major software packages will produce versions that run on a variety of machines (this is called porting). Porting can be crucial to software success since wide availability across many computers means buyers do not have to worry about getting something that will only run on their computers. Word Perfect, possibly the most popular word processor around, is available on the ST, the Amiga, the Mac, the PC, mainframes, etc.

Therefore, the ST is compatible with the PC in disk format and for major software packages through clones and ported software. What about software that is not cloned or ported? Ah, now there's emulation!

YES, Emulation

What is emulation? In computer jargon it refers to making one type of computer act like another type. Through software, hardware add-ons or a combination of both, one computer can be turned into a clone of another. PC Ditto is a piece of software that actually turns the Atari ST into an IBM PC compatible computer. IBM programs, right out of the box, will run on the ST without translation. Therefore, software that has neither been cloned nor ported to the ST can still run on the ST because PC Ditto makes your ST think it is an IBM computer.

There are drawbacks. First, IBM PC compatible computers do not have their operating systems built into them. When you buy an IBM PC type computer, you also have to buy DOS (Disk Operating System). The same applies for PC Ditto; to run IBM PC software on an Atari you have to buy DOS in addition to PC Ditto and that can add about $100 to the cost of running IBM PC software. Second, PC Ditto has to translate all Intel instructions to Motorola instructions and this slows down the emulation. With PC Ditto, the Atari ST can run

IBM PC software at about one third the speed of an IBM PC XT (the bottom of the line PC).

Avant-Garde, the developers of PC Ditto, released PC Ditto II. This is a hardware/software combination that overcomes the speed problem. With PC Ditto II, an Atari ST can run IBM PC software at three times the speed of a basic IBM PC XT.

Background Information Summary

Using the example of Atari ST/IBM PC compatibility, we have seen that the question "Is computer A compatible with computer B?" is not easy to answer. You have to consider media compatibility (Can you use the same disks with both computers?), software compatibility (Is the software you are interested in available on both computers either by porting or cloning? If the same software is not available can the data files be shared by different programs on the two computers?) and emulation (If emulation is available are there disadvantages such as slower performance?). If you really, really need compatibility with computer A but you are thinking of buying computer B because you prefer its features, you have to ask yourself "How important is compatibility? and "How much compatibility do I need?". The answers will tell you whether or not you should buy computer A after all.

Through emulation, Atari ST computers can run as IBM PC or Apple Macintosh computers. The following describes the steps involved in getting three microcomputers in one.

PC Emulation

As described, PC Ditto is a software package that allows Atari ST computers to run IBM PC software. PC Ditto II is a hardware/ software package that greatly improves IBM emulation on the ST. You start PC Ditto or PC Ditto II like any other Atari software package - simply double click on its program icon. PC Ditto forces the Atari ST to abandon its own operating system (which is built into the ST on microchips) and replaces it with a working environment that uses the IBM operating system DOS. Shortly after PC Ditto is started, the user is asked to insert a DOS system disk into the disk drive. Unless you supply DOS, you will not be able to run PC software; this is not a limitation of the Atari since the same is required for a PC.

After the DOS disk is supplied, DOS will load into the Atari ST's memory. Once loaded, the ST is transformed into an IBM PC compatible computer. From this point onward, you will require PC programs on 3.5" disks and the associated manuals. If you have PC software on the older 5.25" disks, you will have to copy it to a 3.5" disk on a PC equipped with both 3.5" and 5.25" drives or you can buy a 5.25" disk drive for the ST. Use the first option--it's a lot cheaper!

WARNING! If you do not have any experience with IBM PC computers you are going to have a tough time getting going with PC Ditto. Unlike the Atari ST's operating system, with its mouse/icon interface, DOS is a command line based operating system and users have to familiarize themselves with DOS before they can use their PCs effectively. When my friend Mark Branecki and I ran our computer camp in the fall of 1988, new users found DOS very difficult to understand. Eventually, we had to limit DOS training because so little was being accomplished. Our students were relieved when we turned the Atari computers back into ST's (to exit PC emulation you will have to restart the computer).

Mac Emulation

There are several Mac emulators on the market but I will discuss only one - Spectre 128. Spectre is a hardware/software product that turns an Atari ST into a Macintosh computer. Spectre lets the ST run Mac software at the same speed as on a real Mac (and in many cases faster).

Since the Mac and the Atari have the same microprocessor (the Motorola 68000), the emulator does not have to translate instructions as the PC emulator has to. Spectre provides the Mac operating system to run Mac software as follows:

Unlike the Atari ST, which has its entire operating system on chips inside the computer, the Mac operating system is partly on chips and partly disk-based software. When you buy Spectre, you also have to buy the Mac's operating system chips (most dealers will include these chips when you buy Spectre). These chips are installed inside the Spectre cartridge which plugs into the cartridge slot on the ST. Spectre does not include the software portion of the Mac's operating system. However, the Mac has undergone so many revisions in its operating system that the latest versions are supplied free of charge to Mac users (and to Spectre 128 users). Once the Mac's chips are in the cartridge and you have the Mac's disk-based operating system, you have all the components needed to run Mac software. There is a hitch, however.

The Mac and the ST do not have compatible disk drives. Therefore, you cannot put a Mac disk into an ST equipped with Spectre and run Mac software. There are several ways around this incompatibility problem. First, hook a Mac and an ST together and transfer the software (not recommended). Second, have a dealer transfer your Mac software to a special Spectre format disk that the ST can read. Third, buy a hardware add-on that tricks your ST's drive into thinking it is a Mac drive (not recommended because of price). Fourth, buy Spectre GCR, the latest version of Spectre 128. Spectre GCR lets your ST read/write Mac disks at the same speed a Mac will read/write them.

Spectre GCR does not affect your ST's ability to use Atari or PC disks. Since the Atari ST's mouse/icon interface is similar to the Mac system, using the Atari as

a Mac is really quite straight forward. Remember the warning about the user unfriendly PC operating system when using PC Ditto. Do not worry about the Mac – it's extremely user friendly and I do not have a corresponding warning for the Spectre emulator.

Parting Shot

I have heard people say the Atari cannot be a very good machine because it tries to run like a PC or a Mac. These people say the computer you buy should be the one answer to your needs. Well, that's nonsense!

The plain truth is that computer loyalty is stronger than GM or Ford loyalty and PC people blast Mac users, Amiga folks put down the ST, Mac users laugh at PC users, etc. For the foreseeable future, a mix of micros will be in the market and as users move from work place to work place, they will be confronted with different systems (in my full time day job, I have to work with CYBERS, VAXs, PCs and the ST; I also provide assistance to Mac users). Knowledge and use of more than one computer system is a valuable asset.

The beauty of the ST is that it is inexpensive and so is most of its software. In addition, with products like PC Ditto II and Spectre GCR, it can run IBM or Macintosh programs. Having three micros in one through emulation, the Atari ST is THE PERFECT tool for schools, colleges and universities since three separate systems can be taught from one inexpensive computer.

THE MARSHALL ARTIST

TAKING A LOOK AT A PIXER FIXER – A NEW SPRITE EDITOR FROM MAGNETIC IMAGES.

by Steve Marshall

You are all probably familiar with computer paint programs like *Degas, Neochrome* and *Seurat* to name just a few. But you may not be as familiar with the so-called sprite editors, paint programs designed specifically for creating the animated sprites you see in popular computer games.

Pass Me a SPRITE. Sprite editors differ from standard paint programs in that, instead of using the whole screen to create a picture, sprite editors divide the screen into individual frames in which you create the drawings of your sprites. If you want animated sprites you can create a range of frames, each one containing a slightly different drawing of your sprite that when copied to the screen in order, create the illusion of motion.

There are several sprite editors on the market but one of the most recent releases has been a powerful sprite editor from Magnetic Images. Written by David Lindsley, ***Pixer Fixer*** has been designed from the beginning to incorporate virtually every feature and capability needed by the professional game designer. The nice part is that it is easy to use and will be appreciated by anyone needing to develop animated sprites for any purpose. A quick disclaimer: I have been associated with David and Magnetic Images since its founding and worked closely with David in developing *Lost Dutchman Mine*. But *Pixer Fixer* is entirely David's effort and I derive no financial return from its sales. I decided to tell you about *Pixer Fixer* because I believe it is a good product and one that game designers might want to know about.

Pixer What?? *Pixer Fixer* may seem like a funny name, and I can tell you it was not David's first choice for his product's name. The working title as it was developed was "Raster Master," but in the copywrite process it was determined by the powers that be that Raster Master was too close to a game released several years ago for the Commodore 64 called "Raster Blaster," so *Pixer Fixer* came to be the official name. But don't let the name throw you; *Pixer Fixer* is a very serious graphics utility, very useful for both the professional and the amateur game programmer.

Let's Get to Work... The main work screen (see the illustration) consists of a large grid, the current palette and a menu with icons representing the functions available within the program. The grid area (which can be set to any size from 8 x 8 pixels up to 48x48), represents one frame of an animation sequence. A second screen shows all of the frames available. The number of frames in a single file will depend on how large your grid is set. A 32x32 pixel grid will allow 60 frames, while a 48x48 grid allows you only 24 frames, usually ample for most animated sequences.

Pixer Fixer allows you to work on two sprite files at the same time, each using its own palette. You can also cut and paste between files. *Pixer Fixer* allows you to load and save your files in Degas, Neochrome or Tiny format as well as data only. Drawing functions include a number of shapes including rectangle, circle, ellipse, triangle, and line. All but line can be selected as filled or unfilled. *Pixer Fixer* lets you use all of the ST's built-in pattern fills, cycling through them either forward or backward. *Pixer Fixer* also allows you to reduce or enlarge the sprite image within a frame and rotate in 90 degree increments, (a future upgrade will support incremental rotation in any angle), and flip images horizontal, or vertical, as well as shift images within the frame horizontally or vertically.

The Feature Presentation... Most of the features mentioned so far can be found in the standard sprite editors. Where *Pixer Fixer* really stands out is in some of its other, more unique capabilities. For instance, *Pixer Fixer* includes a REMAP function, allowing you to change the color used to draw the grid lines, menu text and icons. This is more useful than you might at first suspect when you load in a sprite file with a color palette that makes reading the icons almost impossible. And being able to change the grid color to your liking (or "turning it off" by remapping it to the background color) is much appreciated when fine tuning your sprites.

Two New Functions. Two functions that I particularly appreciate (and have not found in other sprite editors) are the CHANGE and OUTLINE functions of *Pixer Fixer.* CHANGE allows you to change any occurance of a color in a frame (or the entire file) with another specified color. Just select the new color you want to use, select CHANGE from the edit menu, and then click on the color you want to change. Presto! the change is made. Left-clicking affects only the frame you are

editing, right-clicking affects the entire sprite file.

The other unique function is called OUTLINE and allows you to instantly create a one-pixel wide outline around your sprite (it even outlines "holes" within sprites). Now this may not seem very useful but many game designers like the look of black outlined sprites. They stand out against any background (particularly colored backgrounds where other sprites might tend to blend in and become lost) and have a more three-dimensional look than un-outlined sprites.

Who Was That Masked Man... If you've been programming graphic games, you know that you have to create a black "mask" for every sprite. If you don't first copy a black mask to the screen the sprite will discolor when placed over the background. While this can be useful for special effects, generally you want your sprite to look solid and not change color every time it moves on the screen. That's where the mask comes in. It provides a black background right where the sprite goes and allows the sprite to be copied in all its glory. Creating these mask files is easy with *Pixer Fixer*. Just click on the MASK icon (looking a lot like the Lone Ranger's mask) and the mask file (a monochrome version of your complete sprite file) is written to disk for your later use.

(P.S. If you're using *STOS*, you don't have to worry about masks as *STOS* takes care of that for you automatically.)

It's Movie Time. The real value of a sprite editor is for developing animated sprites and *Pixer Fixer* has some nice features. Once you have drawn a series of sprites, you can animate your sequence by selecting the little movie projector icon and then selecting Frame. This brings up your full sprite file and allows you to click on each frame you want to animate in the order you desire. Right-click to return to the main screen, select ANIMATE and watch your animation as it will appear in your program. You can adjust the speed and see the results immediately. You can also step through an animation using the arrow keys for fine tuning sprites.

Admittedly Not for Everyone. While *Pixer Fixer* is not for everyone, if you are interested in programming games or developing animated sequences, this powerful sprite editor can be very useful. I have used it in developing sprites for several games and other graphic projects. Several people have pointed out that *Pixer Fixer* is an excellent graphic utility for *GFA Basic* and *STOS*, and Magnetic Images has included some examples of C code and *GFA Basic* code for the programmer to study.

A Bonus. As a bonus, David has included his *Font Fixer*, a font editor that allows you to edit all 256 characters contained in the ST's low resolution system font. This means that you can load custom fonts into the ST's operating system without the overhead of GDOS. This alone is a very powerful feature for programmers. C source code is included that describes in detail the programming techniques that will easily allow you to use custom designed fonts within your programs. The rest of the disk has been filled with sample sprite files and some sample animations that illustrate the results you can obtain using *Pixer Fixer*.

As I said before, I debated writing about *Pixer Fixer* for fear of appearing self-serving. But I felt the usefulness of the program and my position with Current Notes as "graphic expert" allowed me to bring this report to you in an unbiased a manner as possible. As time goes on, I plan on writing about other new graphic products for the ST.

[Pixer Fixer, $39.95, Magnetic Images Co., P.O. Box 17422, Phoenix, AZ 85011 (602) 265-7849.]

Hard Disk Myths & Mysteries
Part 3: Build It Yourself

by David C. Troy (c) 1989

Did your dad ever just get up on a Saturday and rebuild a carburetor? Or did he ever build a radio from parts? My dad did. I recall countless fall weekends spent watching my dad soak little metal greasy parts of the Dodge Dart in paint thinner, insisting all the while that when he reassembled it, the car would be a lot happier. Usually gaskets leaked, and the car was never the same again, but dad at least knew exactly how the carburetor *worked*. Dad usually did a little better job with electronics. Heathkit gadgets are things I've grown up with, and I remember being told at about age four that those "little red lights" were light emitting diodes. Not until relatively recently did I know exactly what that meant, and why they were called diodes, but I at least had some idea how things worked, and that's because of my parents, and having that knowledge at an early age has instilled a morbid curiosity in me to know how lots of things work. Take hard drives for instance.

The first time I tried to get a hard drive working for myself was about three years ago in December 1986. I had a 130XE and an MIO board, and I knew it was possible to put a hard drive on there, but unsure exactly how. ICD sold whole hard drives for use on them, but I figured, "Nah, I can figure it out." I found out I needed an SCSI controller and an ST506/412 hard drive, and a power supply. I already had a power supply. Before this phase I was a 720K floppy junky. My parents quickly became bored of my saying triumphantly that I had doubled my disk capacity. Usually it was me just unsuccessfully faking out a 1050, but when I got the 360 and 720K drives I really did double it. But by that time they assumed I must have at least 14 megabytes on a single floppy, as many times as I had doubled my disk capacity. But that aside, back to the story. I picked up a 10 megabyte MFM Microscience HH612 hard drive for $99 from some clearing house, and I had a heck of a time formatting it on the XE. For a couple of days it acted like a five megabyte ramdisk. I'd copy stuff onto there but when I turned it off, it would forget everything it knew. Plus it was only five megs. But finally I got it to work right, and wow what a day that was! I have been a hard drive junky ever since.

The ST Days

I got my ST in January 1986, and thought that a hard drive would be something that would be out of reach for a very long time. So, I bought SF314's and lived with slow floppies. When I got the MIO hard disk in December, I said to myself, "Self, this is dog food. Why can I have a hard disk on my pokey 8-bit and not on my longer lower and wider ST?" I compared the pinouts of the MIO with the pinouts of the DMA (ACSI--Atari Computer Systems Interface) and concluded that they were similar, and all that someone needed to do was build a board that made the DMA port talk to a SCSI controller, and it would work. I didn't know at the time that this was how the Atari and Supra drives worked, but shortly after, I guess around January or February of 1987, ICD came out with their ST Host Adapter, and after building a few systems, I quickly became the town expert on ST hard drives. So, what the hell. I liked building hard drives, and being an Atari dealer, I made money at it. So, everything was great.

Kits & Things

I had the fortunate experience of building my own ST hard drive, an experience which has catapulted me into all sorts of questionable fame and even more questionable fortune, what with Toadfile 44's and all. A lot of people still want to build their own hard drives. The same things are still necessary: 1) A hard drive mechanism, 2) a controller (imbedded or otherwise), 3) a power supply, 4) a host adapter, 5) a case (optional for Indiana Jones types), and, lastly, 6) cabling (things like to be connected.) A morbid curiosity is recommended, although optional, but it will be acquired involuntarily through the process of "building it yourself." I will give you this advice though. In this age of disposable cars and deteriorating ozone, don't try to build a hard drive from scratch unless you already have one or more of the major component parts. ST hard drives are one of the few cases in which the parts will cost more than the whole, especially if you shop around. If curiosity still kills you, get a pre-assembled drive, take it apart and soak the parts in paint thinner, and hope the gaskets don't leak, and at least then you'll know how it all works. With that in mind, let's look at these parts and see how they work together.

Host Adapters

These are not special eating utensils for ticks. This name has always conjured up this sort of an image for me; actually their function is quite different, but can still be categorized as "interfacing." As I mentioned a second ago, a host adapter goes from DMA (ACSI) to SCSI (Small Computer Systems Interface). (See last month's installation of this series for more infor-

mation on SCSI, MFM and RLL.) There are several host adapters available for the ST--ICD's, Supra's, Berkeley Microsystems', Atari's, and a couple of other ones I don't know about. Their function is all the same, but some are neater than others, work better, and have better software. Although I cannot claim this to be a strongly comparative review, I feel the ICD is your best bet with the Supra making a strong second. They seem to have the best software, in terms of ease of use, and the ICD even has a clock. Choose for yourself though. Read up, call people, question, think global, act local and react.

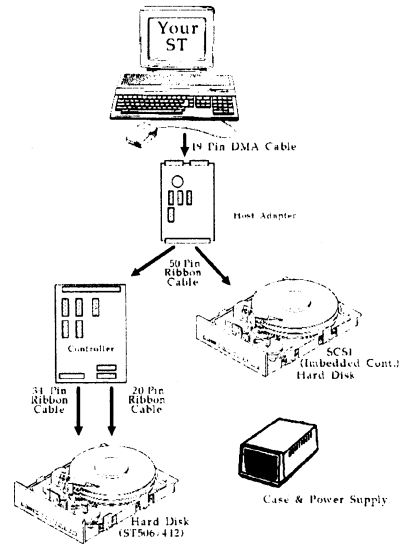
Controllers, or Lack Thereof

Functionally, a hard drive controller's job is to convert SCSI into something a hard drive can understand, like where to put the heads and what data to put there. SCSI just knows about data and not about heads and cylinders. So, that's the controller's duty--to tell the hard disk where to go. One might ask, "Why not have a board with a host adapter and a controller combined?" Well, the answer is, SCSI can be used to talk to other devices besides hard drives, like tape backups, optical drives, and ethernet cards, just to name a few. That aside, let's look at hard drive controller connections. As we said, their input is SCSI, and their output is ST506/412 (a standard created by Seagate.) The ST506/412 interface is characterized by a 34-pin and a 20-pin connection. Most controllers can handle two hard drives, and they have one 34-pin connector and two 20-pin connectors. They share the same 34-pin output (connectors are daisy chained onto one cable) and they use separate 20-pin outputs. Controllers should be matched to the hard drive used by their rating as MFM or RLL (see the previous article in this series for an explanation.)

"Why not have a hard drive with a built in controller?" Why not? Lots of companies do, and they are cheaper and faster than ST506/412 drives even when using the fastest controllers. The drives with built-in controllers are called SCSI drives, because they have a SCSI input (50-pin array) connector right on them. There is no need for a separate controller, even when adding drives to the system. Just add another SCSI hard drive. Neeto keen, eh?

Electricity and a Box

In order to make all of these wonderful components be complete, you need to have electricity. The hard drive mechanism, the controller (should you choose to



accept it), and the host adapter all need power. Hard drive power supplies (the same as floppy disk power supplies, incidentally) put out +5V and +12V. They have funky shaped molded plastic four pin connectors (two grounds). Typically, you'd like to have about 30 watts on hand for a given hard drive and its paraphernalia.

As far as a box goes, I say follow your heart. You need to assemble things in such a way as not to short anything out, or have any one component cause its neighbor too much radio interference. Other than that, whatever makes you happy is what works. You can buy pre-made hard drive cabinets that have built in power supplies. That's usually a reasonable way to go. An IBM PC power supply and a wine box work pretty well, though.

Breathing Life into the Beast

Once you have all of these components connected together, you need to make it work. Formatting and partitioning is what is required. This sets up the drive so the ST knows where everything is, and it divides the drive up into sections that behave as separate disk drives. This can be easier said than done, and if you are having troubles, chances are your connections are backwards somehow, or just slightly wrong. Once the hardware is set up right, formatting and partitioning is a breeze and a delight. Then you're ready to go, just as if you had bought a hard drive already assembled. Wow.

Gosh

Well, in this series I've tried to tell you everything you need to know about hard disks, and I hope you understand a little better how things work. Unfortunately, I could ramble on for quite a long time to try to answer every question you might have. Instead, I think I will ramble on for just one more issue, and try to tie up any loose ends. In fact, if you have a question or an idea about hard disks which you would like addressed, please send it to me. (We'll have an extra amount of time since there is no January issue.)

Send your questions to:

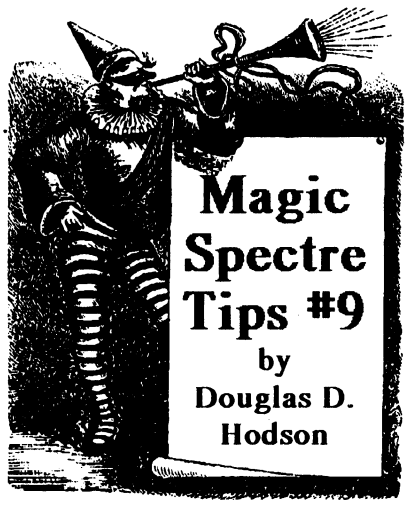
David Troy

556 Baltimore Annapolis Blvd.

Severna Park, MD 21146

I'd prefer you write rather than call, so I can have something tangible to refer to and answer in the next article.

Well, happy hard driving, and on second thought, don't disassemble a hard drive and soak it in paint thinner. The gaskets always leak.



It's Here!

Three memorable events have happened in the last 24 hours...

1) The earthquake hit California.
2) The shuttle lifted off with Galileo on board.
3) I got my GCR!

This was the comment Jim Dossey made up on GEnie Information Service. If you ask anyone with a GCR now, I'm sure this is the general feeling. One Saturday I was working with my computer when I was thinking about how nice it will be when the GCR arrives. I got up to walk into the kitchen only to find a box lying on the floor behind the dining room table. Care to guess what it was? The GCR had been sitting there for a couple of days!

Quickly I opened the box to find a very complete manual, the new Spectre software release and even a public domain Mac formatted disk! The GCR is nicely packaged and inserting the old ROMs from the (old) Spectre into the GCR was a breeze. I had it up and running within minutes.

The first test was (of course) reading a Macintosh formatted disk. The closest disk handy was the Mac disk enclosed. Into the drive it goes. Wammo, disk icon appears. Double click, directory appears. Try to copy all the files to my hard disk, hmmm. It's having trouble? Must be a bad disk. Get another Mac disk, try again, hmmm. Still having trouble... Time to consult the manual. No luck.

Time to consult the experts "up on GEnie" (David Small himself and many others). I come to discover that my Mega's internal disk drive is probably not shielded very well and is picking up interference from the Mega's power supply. This is somehow giving my GCR a serious problem reading Mac disks. So I read all the messages discussing possible shielding fixes, then I decide it's time to go for it. Shield my Mega. It took me about two hours to do, but in the end I was reading, writing and formatting Mac disks with ease. I haven't had a problem since!

I feel the following information could be "vital" to Mega owners, so it is being released "everywhere" to help GCR owners solve their shielding problems. If you or your local user group would like a copy to use and distribute, please feel free to contact me, and I will send you a copy. It would be appreciated if you would send a self addressed stamped envelope (so I don't end up spending a fortune). [Douglas Hodson, 2901 Kenmore Avenue, Dayton, Ohio 45420, (513) 254-3160.]

The Mega ST Shielding Problem

If you're a Mega ST owner, the following information could solve a BIG problem. It has been discovered that many Mega's are not shielded adequately for proper GCR operation. The basic problem is the shielding of the internal disk drive. If your Mega ST is not shielded properly, your GCR *will operate*, but it *might* have trouble reading and writing Macintosh formatted diskettes. The problem of reading and writing to Macintosh disks only exists for the Mega's internal drive! If you own an external drive, the GCR will read and write to that drive without any problems.

Try out your GCR first! If you experience no problems, trash this information. But if you do experience problems, you may consider our solution to the problem.

The Fix

This is a fix I have used to cure the shielding problem for a number of Mega's. The procedure involves opening your Mega and adding additional shielding to the internal disk drive cable. If you're not comfortable with opening your Mega, consider taking it to your local Atari dealer to see if they can perform the following steps themselves. Note: The following procedure *will* violate your Atari warranty.

Before you open your Mega case, you need to locate a couple of items:

- ✓ Insulating tape
- ✓ Aluminum foil
- ✓ Some thin wire
- ✓ Screw driver(s)

The main component that requires shielding is the ribbon cable connecting the disk drive to the main circuit board of the ST. The disk drive itself is already shielded. Following the procedure listed below should solve the shielding problem.

Procedure

Step 1: Open the Mega. Several screws on the bottom of the case need to be removed. After they are removed, the top of the Mega can be lifted off. Be careful of the wire connecting the clock batteries to the main circuit board. It must be disconnected for complete removal.

Step 2: Remove the large metal shield that encases the entire machine. This shield is used to shield the Mega from the rest of the world (such as the monitor). We need to shield the disk drive from the rest of the computer (mainly the power supply).

Step 3: Viewing the machine from the front reveals three main components; the main circuit board (also called the motherboard), the

power supply and the disk drive. The power supply is located in the back-right corner of the computer. The disk drive can be removed by disconnecting two connectors. First disconnect the power connector (it's the small one). Next, disconnect the data connector (the large flat ribbon cable.)

Step 4: If the power cable (the one to the disk drive) is wrapped around the ribbon cable, be sure to unwrap it! Unwrapping the power wires from the ribbon cable will help eliminate some of the RFI (Radio Frequency Interference) disturbance.

Step 5: Now comes the time to shield the main part of the system, the ribbon cable. Wrap a piece of aluminum foil around the cable so that it's completely encased. Be sure not to leave *any* scraps of aluminum in the machine. Scraps will short out the circuit board! Next wrap the thin wire around the aluminum foil so that it's in good contact (this will be your ground wire).

Step 6: This is the most important part of the procedure. If the cable is not insulated from the rest of the machine, you will surely short out something! This is the purpose of the "insulating" tape. Make sure to wrap the tape around the foil to insulate it from anything that may be nearby. Make sure the wire is in good contact with the aluminum foil.

Step 7: Now plug both connectors back into the drive. Before the drive is "seated" back into position, tuck the ribbon cable beneath it (instead of hanging out the back) as best you can. Also keep the ribbon cable as far away from the power connectors as possible.

Step 8: Now it's time to actually ground your home-brew shield. The wire that's connected to the foil should be connected to one of the screws holding the disk drive shield on.

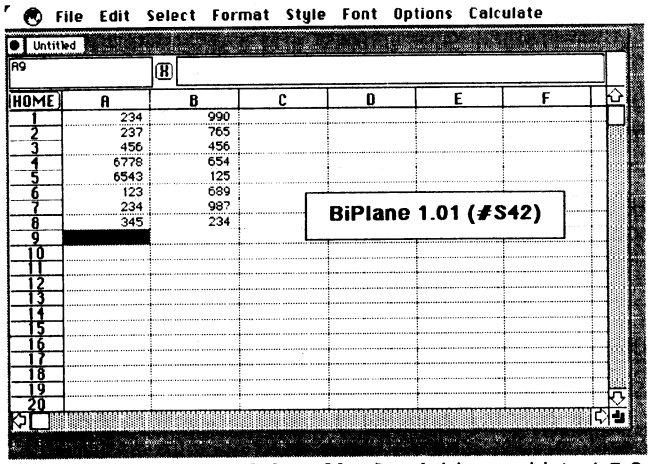
Step 9: If you exercise some caution, the GCR can now be tested without replacing the main shield and screws. Note: If you do test it, keep the monitor well away from the Mega. Remember the rest of the Mega isn't shielded right now!

Step 10: If it works, great. Replace the main shield and top lid, then all the screws. You're done.

Step 11: If it didn't work, you may consider rearranging the cables, or check the grounding of your shield by using an ohm meter. Other than that, consult your GCR documentation for the latest information.

New Spectre CN Library Disks by Jeff Greenblatt

This month, Current Notes is releasing five new PD and Shareware Spectre compatible (128K ROMs) library disks. For those of you using the Spectre with 64K ROMs, I recommend the excellent CN Magic library. If you like and use any of the files, don't forget to make your shareware donation(s) to the author(s).



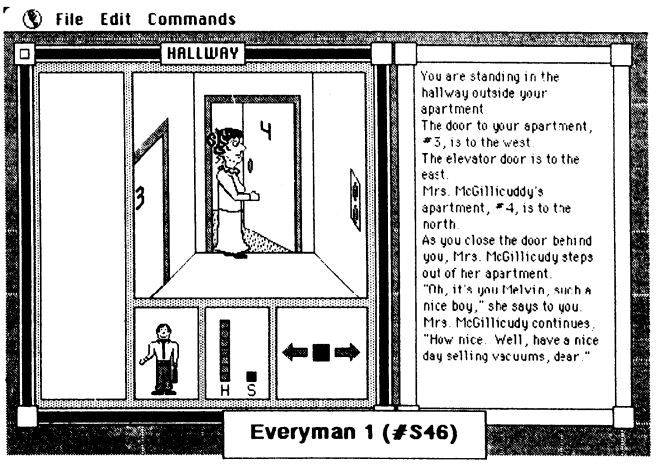
#S42: Productivity No.2. Address List 1.5.2, BiPlane 1.01 (a full-featured speadsheet), Doctor 2.35 (makes self launching documents), and Mac Mailing 1.4S (a mail list program).

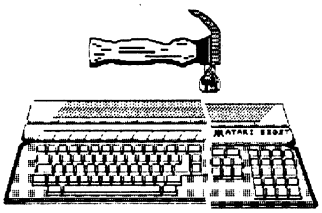
#S43: VideoWorks w/Sound No.2. 7 more VideoWorks animation files that include sound. The disk also contains a VideoWorks player and Macintalk to produce the sound. This disk must be used with version 1.9 or higher of Spectre. The files are Hello Amiga, MacPaint Vid, Movies 3, My1stVid, Trash, Vamp NY 1, and China Doll.

#S44: Utilities No.6. 22 utility files and documentation: FFDA Sampler, Vaccine 1.01, Black Box 1.5, BB Docs, Complete Delete, Earth Init, File Fixer, FF Docs, IconWrap Init, IconWrap Docs, Macify 2.5, MacSpeed, Repair 1.4, Rescue, Scrolling Menu Installer, Shredder 6.0 and Docs, SystemVersion, TextDiff, TFinder 2.2, ToMultifinder 2.3, and Version Reader 2.2.

#S45: Graphics No.2. 11 graphics oriented files and documentation. They are MandelZot 1.4.1 and Docs, Micro Swarm, Notebook 1.0, Notebook.help, NoteNotes5, PyreWorks, ScanPaint and Docs, SelectPaint, and ViewPaint 1.7.

#S46: Everyman 1. A graphics/text adventure created with WorldBuilder (must be used with version 1.9 or higher of Spectre with the sound turned on).





Christmas Software Shopping Spree

...for those who do not have much software or money.

Christmas is coming and, as every year at this time, our wallets start itching, with those little plastic rectangles inside begging to be let out and get some action. If you are reading these words, it means you probably have an Atari ST and you may be looking for some good pieces of software to spend your money on.

Last month my friend Junkyard Pussycat presented his recommendations regarding Christmas shopping. Now it is my turn. In this review I will make two, possibly wrong, assumptions: (i) you do not have much ST software you can use, and (ii) you are on a limited budget. Before we begin, however, let me briefly discuss the criteria I am going to use in this review.

☞**Value.** A high degree of genuine usefulness or entertaining value, representing either the best performance in their class, or the best combination of performance, ease of use and price.

☞**Ease of use**. A program should be a tool or a toy, but not a new way of life. Therefore, software with an *unnecessarily* complicated (or just clumsy) user interface is excluded from this list.

☞**Good behavior**. Either entirely bug-free, or (in case of no significant competition meeting other requirements) with minor non-critical bugs, easy to work around.

☞**Look and feel.** Some programs just look and feel right, and some do not. As personal as this may be a criterion, most of us have similar feelings on this matter.

Now, let me set one thing straight: some of the opinions I express here may be, of course, quite personal. This cannot be avoided in such a comparison. If you have read any of my past software reviews in *Current Notes* of a program you have and know, you should be able to know the points on which our requirements and tastes may coincide or be in a disagreement.

My personal recommendation will, of course, center around programs I know from my own experience. This means, I am not pretending to any degree of completeness in this list. Let us just treat it as a kind of friendly gossip, addressed mostly to those who are just starting to expand their software collection.

I will not be quoting list prices, as they usually are much higher than what you really have to pay at your friendly dealership. Some local retailers advertising in *Current Notes* publish quite comprehensive discount price listings, which should be more informative.

General Utilities

These are programs which enhance the performance of your computer or make using it easier and more enjoyable. I have some clear winners here, deserving the highest possible recommendation:

☆ ***Universal Item Selector II*** is a relatively small program, which, when you boot up your machine, will install itself quietly in the background and replace the not-so-great standard GEM File Selector. It will not only provide all file selector functions, but also most of other disk operations (copy, rename, move, format). It will even search the disk for a given file--and much more. The thing is so inexpensive, that it is practically given away! Every ST user should buy (mind it: buy, not just have!) one.

☆ ***NeoDesk*** (the current version is 2.05) will replace your familiar GEM desktop. No, you will not have to unlearn any of your working habits, but you will gain much in the ease of operation and accessible options. I would not recommend the program to those who have only 500k of RAM and a single disk drive, but for 2-drive 1 Meg users (1040ST, expanded 520ST or Mega) it is more than worth the expense, and, for hard drive owners, it is a must.

Both the above programs are solid, well-designed, and darned useful; once you start using them, there is no way back. They are also examples of how small independent software houses are successfully filling the gaps left by the biggies.

A slightly more specialized utility also deserves high attention if you use any GDOS-based programs (like *Easy Draw*, *Publisher ST* etc.):

☆ ***G+Plus*** replaces the Atari-supplied GDOS, also taking most of the drudgery from the painful process of configuring font sets for a given application. If you do not use any GDOS programs, then forget about *G+Plus*, but if you do, then, without any doubt, you need it.

Word Processing and Text Editing

This is, by far, the most common application of personal computers. The chances are that you may

already have a word processor (originally the ST was bundled with *First Word*), but you may want to upgrade to something more powerful or easier to use. Two inexpensive alternatives come to mind:

☆ ***Word Writer***. If you have used *First Word*, you will already know how to use *Word Writer* (well, at least most of it). It is not the most powerful word processor imaginable (quite far from that), but it is intuitive in use, well-behaved, does everything on the screen and has a good spelling checker and thesaurus. It is also very inexpensive.

☆ ***First Word Plus*** (current version is 3.14) is a large step ahead from the original *First Word* (or from the early Version 2). It has keyboard alternatives for most of the menu options, allows for different pieces of your document to be formatted differently (so-called multiple rules) and for inserting footnotes. It also has a spelling checker and some simple graphic insertion capabilities. Slightly more expensive than *Word Writer*, but also more powerful and almost as easy to use, it is a very good buy, too.

My feelings about the frequently recommended *Word Perfect* are mixed. I know some people who use it all the time and would not live without it, but, given all its power, I still find the user interface awkward. I have had the program for almost two years now and still use it only occasionally. It is also much more expensive than the two programs I listed above (which is perfectly understandable).

Text editing is a narrower job than word processing. No text attributes, no document formatting, no footnotes or spell checking, just editing a text file in a fast and efficient manner. One program here stands clearly above the rest:

☆ ***Tempus II***, a worthy successor to the original *Tempus* from Germany. Fast, powerful and reliable, for some users may be worth any price. If all you need is a plain ASCII file (a program, or just text to be imported into a desktop publishing file), then *Tempus II* is worth almost any price.

Desktop Publishing

In spite of some (non-critical) bugs and other shortcomings, and of the stiff competition created by *Calamus* from one side and *PageStream* from the other, there is one program clearly winning in the competition (at least as I see it).

☆ ***Timeworks Publisher ST*** has a very intuitive and well-designed user interface (to be frank, cloned from *Ventura Publisher* of the IBM PC fame), and the trade-offs between price and performance are, in most cases at least, well justified. This program definitely will not gather dust on your closet shelf, whether your publishing needs are quite elementary (like nicely-looking letters or reports) or more sophisticated (Joe Waters is still using *Publisher ST* for *Current Notes*, so judge for yourself), you should be quite happy with this program. I may criticize *Publisher ST* over and over, but I keep coming back to it again and again, like to an old and proven friend. And the price is right. If you want to enter the DTP world, this seems to be the best choice, at least for the time being.

Graphics

Not being a computer graphic wizard, most of my needs can be met by a painting (i.e. pixel-mapped graphic) program. In spite of many offerings from various directions, one program withstood the test of time:

☆ ***Degas Elite*** is a no-nonsense, very intuitive and quite capable graphic tool. If you have no graphic program (or if you have the pre-Elite version), it is definitely a sound investment. It will meet 90% of your needs, and when you outgrow it, you will no longer need my advice.

☆ I have also tried ***Touch-Up***. A much more powerful program, especially suitable for desktop publishing applications, and--of course--*much* less easy to use. The learning investment is, however, well worth the time. *Touch-Up* may well become the next power-user's standard.

☆ Another oldtimer, still going strong and a standard in its class, is ***EasyDraw***. This program allows you to treat pieces of your drawing as separate objects: they can be moved, resized, arranged into layers, individually multiplied and deleted, etc. As I have already mentioned, I am not a strong graphic user, so I use *EasyDraw* once a month or so. I find some of its features quite annoying, but, on the other hand, the program seems to face no real competition in its category and may be used for some quite impressive work.

Programming Just for Fun

This is fun time, so we will skip the "regular" programming languages (although ***GFA BASIC v.3***, ***Laser C***, all **Prospero** languages and ***True BASIC***, in alphabetical order, have my recommendation). Let us just limit ourselves to:

☆ ***STOS BASIC***, a dialect oriented specifically for graphic and animation applications, games in particular. As a language it is quite old-fashioned (not to say: primitive), but it contains numerous graphic, sound and animation extensions, placing it, in this aspect, far ahead of any competition. For example, having a sprite move around a defined region of the screen (while the main program does entirely different things in its own pace) takes just a single line of code.

STOS BASIC also comes with some useful accessory programs (like sprite and sound editors) and it may take a while to master its full potential. Simple things

are, however, simple to program in *STOS*, so you can get started easily and then learn more while doing things (and having lots of fun at the same time).

Games for Non-Gamesters

To be frank, I am not a devoted game-player. If you are one, then do not listen to my advice. If, however, you find most of the games you have tried frustrating, boring, irritating or offending your intelligence (about 90% of those I have bought somehow fit into one or more of those categories), then my suggestions may be for you.

☆ ***Dungeon Master***--not only good graphics and very well designed user interface (a rarity in games, indeed), but also a piece of very impressive object-oriented programming. If you have a color monitor and still do not have a copy of *DM*, get one, for goodness sakes, even if you hate computer games! The game designers did a very good job, gradually increasing the level of difficulty to avoid early frustration, and if you do not feel like mapping the dungeons, comprehensive maps of all levels (and some useful hint files) are available in the Public Domain (including the *Current Notes Library*).

The combination of strong points visible in the *Dungeon Master* is not so easy to achieve. For example, the widely acclaimed *Heroes of the Lance* (outstanding graphics and lots of other goodies) can be, from my point at least, disqualified for exceptionally clumsy user interface. The equally popular *Barbarian* suffers from the primitive game logic: you get somewhere, get killed (no way to avoid it), memorize the trap, play the game from the beginning, get killed by the next trap, and so one, *ad nauseam*. If you wanted to ask what games may offend your intelligence, this is a good example (all this good graphic and animation wasted by the lack of concept).

☆ As an arcade game, ***Oids*** is, by far, my personal favorite. You can practice on "worlds" with low difficulty level and get started without unnecessary frustration, while the more difficult worlds will provide enough challenge. The game is fairly simple (if it moves, shoot it; if it doesn't, shoot it; refuel, get these little jumping guys aboard and run home), but it comes with a game editor, so you may create as many worlds as you like. Another piece of outstanding object-oriented programming (from the same FTL Games that did the *Dungeon Master*--not a coincidence).

Frankly speaking, these two games have seen more use than all the other 120 or so in my collection, and they are the only ones I can recommend without reservations.

Looking Forward to 1990

Another year is about to end, and this will be my sixth year in this country. In case you take it for granted: this is quite a unique place, embracing the newcomers from everywhere, no questions asked, letting them blend in and do whatever they want to do. One may like some things in the US of A more than others, but this acceptance overrides everything else.

One of the best things which happened to me here was joining the world of fun-loving, enthusiastic and friendly hobbyist Atarians. I have friends in the Mac and PC worlds, but from what I could see, neither of those groups has such a *percentage* of hardcore, dedicated and knowledgeable enthusiasts, many of whom could afford more prestigious machines, but would not do it, unwilling to miss all the fun. It was, indeed, a great experience, starting from the first contacts on the TANJ (hey, John! are you still out there?) and other local bulletin boards, and then meeting all those people through GEnie, CompuServe and, of course, *CN*.

Let me just hope that in 1990 we will all still be around, having fun with our machines (and even more among ourselves), arguing a lot (of course: only cows do not argue), and sharing the same spirit as in the last years. See you all next year!

Stuck in a Rut

by Sam Wright

Maniac Mansion

Dave and Sandy in the lair of Dr. Fred.

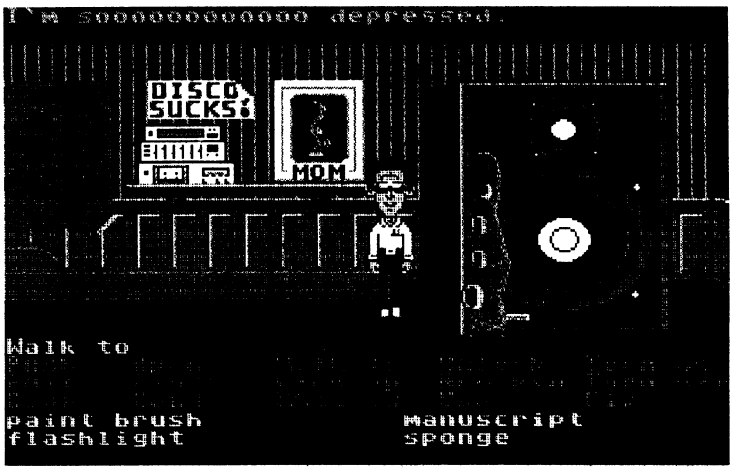
It was twenty years ago today, the slimy green tentacle longed to play...

Twenty years ago, life in the mansion was about as normal as anybody could expect: Dr. Fred just declared a well-deserved retirement, Nurse Edna cared for Dr. Fred's ailing patients, Weird Ed did the typical teenage things, and Dead Cousin Ted ... well, he was dead.

Once the meteor struck, Dr. Fred began having visions of ruling the world dancing in his head, Nurse Edna became a nymphomaniac to everything that moved, Weird Ed did the typical teenage things, and Dead Cousin Ted ... well, he was still dead.

You never thought anything of the mansion--let alone entering it--until your girlfriend, Sandy, was abducted late one night. Who knows what could be happening to her in the dark reaches of the mansion?

Leading a team of crack, expert classmates into the mansion (organized through a classified ad), your commandos have but one goal: to rescue Sandy.



The green tentacle's room, posing with Bernard.

Lucasfilm Games' *Maniac Mansion* ($44.95) opens with a bang and doesn't let up on the excitement until the final minute and two seconds (my record) of the game. It runs on all color STs and comes on a double-sided disk (single-sided disks are available free of charge through a trade-in offer). *Maniac Mansion* isn't copy protected, so you're able to make back-up copies as well as store it on your hard drive.

Maniac Mansion is totally mouse-driven; there's no typing whatsoever. To enter commands, you point to a phrase at the bottom of the screen and complete it by pointing at a pictured noun. Similar to the Mindscape adventures, this makes the parser straightforward, eliminating the guessing game of what words it knows and getting into the adventure faster. In doing so, however, the parser also eliminates the learning process involved in manipulating words and sentences a la Infocom's text adventures. The growing trend in adventure games seems to be increasingly visual with as little to do with text (reading) as possible. While not altogether bad, especially for entertainment and weary eyes, the imagination of what things look like from descriptions becomes severely limited. *Zork I* practically taught me how to type. The more I played it, the more proficient I became on the keyboard. Today, people brought up on strictly graphic/action adventure games will be able to move a mouse and press its buttons.

But off the soapbox. For now, anyway.

Maniac Mansion begins with the formation of your squad. Any combination of kids will enable you to solve the game, although through different routes. There are many different ways of solving the game. Some puzzles require the knowledge of a specific person while others all will be able to solve. Syd and Razor are both musicians, but their different sexes may be significant. Michael is a photographer. Wendy is familiar with the brutal process of writing, revising, and rewriting. Bernard can fix just about anything but has a weak stomach. Jeff ("Surfer Dude") dreams of making waves while guessing winning Lotto numbers. All have different areas of expertise, all have different personalities, and all will overcome the possessed Dr. Fred. After you've finished the game, try replaying with different people. You'll notice you won't be able to finish the same way you did last time. This month's hints describe everything I was able to do using various combinations of teams. Keep in mind you won't need all the answers to finish the game.

Your point of view changes from Dave to the two others you choose. However, they tend to share information without your knowledge. For example, once one kid discovers the combination to the inner door, another kid knows it. While understandable, since you're the one controlling all three, the consistency is lost when one person views a street address and another kid doesn't know it. Each kid has a unique personality which should be stressed by staying within each person's mind. Only

Dave and Sandy in the lair of Dr. Fred.

when they're together should they be able to share information.

Since I'm from the school of storing objects in one room so I can keep track of everything, I didn't like being unable to drop something once I had picked it up. You can give objects to other people; otherwise, once you pick something up, it's yours forever.

What really bothered me was the switch to the third-person narrative. While playing the game, interruptions of mini-movies will occur showing you what's happening in other parts of the house. Sure, they're interesting and funny and reveal more of the plot, but the gameplay jumps out of the kids' minds and into an omniscient observer's. It makes things too easy. I would much rather stumble onto clues, fit the pieces together, and form my own ideas. Instead, I'm out-and-out told what's happening. It wouldn't be that difficult to uncover the plot through, say, Dr. Fred's secret diary, a hidden cassette or videocassette recording, eavesdropping on a conversation, observing goings-on through an air duct--anything so that the information is worked for, not handed out for free.

One final complaint: the "What Is" command should be disabled in the dark. In darkness, I can't tell the difference between human eyeballs and seedless grapes, so I don't expect to always be able to find a light switch in the dark. The flashlight could be better put to use here.

After all this whining, would I still recommend the game? You bet. It's fun and that's really all you should expect from a game. I'm looking forward to the next Lucasfilm Games production.

Characters

Dead Cousin Ted: He's still dead.

Dr. Fred: The dear, mad scientist is not really that bad nor is he just drawn that way.

Eteer, Mark: President and one of the three Guys Who Publish Anything, he'll make dreams come true.

Meteor: The heart of all evil comprises this chunk of matter.

Meteor Police: Bernard to the rescue!

Moose: Don't mind him; he's just here to work himself into another column.

Nurse Edna: There're no redeeming qualities about her.

Tentacle, Green: He's just hungry and thirsty for things resembling health food ... and depressed he's not recognized in the music industry.

Tentacle, Purple: He respects authority, even though he's a slave to Dr. Fred. However, his first alliance is with the meteor and any attempt to improve the meteor's reputation will be more than enough reason to let you through. Oh, and don't call him sucker-face to his face.

Weird Ed: He's concerned about his father. Teaming up with him may be for the best.

Locations

None of the rooms has a specific name, so I made one up depending on the surroundings and furniture inside. If a room isn't mentioned, try looking up the object associated with the puzzle. The college bulletin board in the documentation contains many helpful and amusing clues that'll get you started.

Door, Dungeon: Did you hear the one about the Trailer Park Tornado? Even barred windows couldn't hold it back. Or the one about the plane crash in the Bermuda Triangle? That could be the key to the whole problem.

Door, Front: Breaking and entering is a crime, but Sandy's life is at stake! What would Edna Dearest say in a situation like this?

Door, Garage: All you need is a little muscle from the Arnold Schwarzenegger school of thought.

Door, Handleless: If you can only enter from the other way, I wouldn't waste my time on it. But the gargoyle looks pretty cute.

Door, Inner: Dr. Fred has a hard time remembering the combination himself. He must store it somewhere before he forgets.

Door, Pantry: Try hanging around the fuse box.

Door, Secret Lab: Is it too cold for a swim?

Door, Steel Security: Those Nuke'm Alarms can be aggravating. When disarming the system, keep in mind that black on the screen is clear in the guide, and white on the screen is dark in the guide. Dr. Fred's neighbors of a five-mile radius will thank you.

Music Room: Razor or Syd could use it for a miniature recording studio. After making a demo tape, be sure to share it with a fellow musician who appreciates fine art.

Swimming Pool: Fortunately, no one wants to get wet; the water's radioactive.

Objects

Use the "What Is" command often to find out what objects the game recognizes as usable, especially in the dark. There are no ogres to speak of nor any nasty

pitfalls leading to death. The worst that can happen is you'll be doing a startling rendition of Michael Jackson's moonwalk. Remember: the blood's really ketchup!

Blackboard: Meteor formulas?

Car, Weird Edsel: Whose car is it? You may be able to rock it, but I doubt anything would fall out. If you ever wanted to get rid of something, the Weird Edsel would be the way to do it.

Card key: Are laboratory hamsters better than laboratory mice?

Cassette recorder: What fun is recording music if you have no one to share it with?

Cassette tape: Is Chuck the Plant hoarding the blank ones again?

Cement slab: This is a one-way only slab of cement.

Chainsaw: That's another family altogether.

Chandelier: Those tentacle mating calls must be from Bermuda.

Dime: Weird Ed's piggy bank has a few and if you're observant, you'll see someone in Dr. Fred's room has been careless with one. However, two is more than enough, providing they're the right ones.

Envelope: I'm steamed. It just contains money for a stamp!

Film: Weird Ed would be indebted to you if you were to give it to him. Of course, you'd have to find it first, which would be like looking for a grating in a bush. Weird Ed would be even more grateful if you were to develop the prints for him.

Film developer: Soak it for all it's worth.

Flashlight: Radios are also good to have when the power goes out.

Grandfather clock: Tick tock, tick tock, if you were facing backwards, would you say tock tick? No matter, it's still three o'clock and useless.

Grating: Open it the same way you did the garage door ... or with what you find inside the garage.

Hamster: They're better than tarantulas. You can pick them up without the fear of getting bitten.

Hunk-O-Matic: Do you think Arnold Schwarzenegger has one of them?

Mailbox: Strangely enough, the mail carrier stops by several times a day, but only if you show you're expecting him while staying inside, cooling off your watched pot.

Manuscript: I'll bet more than the National Inquisitor would be interested in the meteor's memoirs. If only someone could write them, it would be a cinch to get them published!

Microwave oven: Nurse Edna would be plenty steamed if you used it on inedible objects.

Package: Weird Ed would be indebted to you if you were to give his secret commando plans to him.

Paint blotch: When is a paint blotch not a paint blotch?

Painting (Dining Room): Is today Sunday? Where's the park? Who's George?

Piano: You don't have years and years of practice, but Syd or Razor do.

Plant, Man-eating: Could Jack's beans have been radioactive? Nah, it must be something in the water because anything would be better than soft drinks. Soda pop would give anyone indigestion.

Radio: Could it be? Surfer Dude's long, lost boom box? I wonder if the batteries are still good...

Radio, Old: Bernard's "How to Pick Up Girls" pales in comparison to the contents of this lovely hardware item.

Radio, Shortwave: Bernard can fix it by simply switching parts.

Radioactive slime: Would you rather have crawling, sticky, gooey, chunky, primordial ooze? Then be thankful it's just radioactive.

Sponge: What a revolting development.

Staircase (Library): Not even a thousand Bernards could fix that!

Stamp: There're a couple on the package.

Telephone (Library): For a good time, call...

Telescope: Telescopes are just big magnifying glasses; they can be used to read microscopic print.

Trunk, Weird Edsel: It's capable of containing things, too.

TV: Ads, ads, ads, nothing but ads.

Typewriter: One of Wendy's tools, but just because it's a favorite of hers doesn't mean the other kids can't type short notes of correspondence.

Video arcade: Nurse Edna loves a good, radioactive, meaty ore, especially if she can get it for free.

Water faucet handle: I wonder if Dead Cousin Ted ever drove the Weird Edsel...

Water valve: Remember the plans for the house? The valve's right under the swimming pool.

Waxed fruit: Some things have strange tastes.

Wires, Broken: The arcade machines used to work.

Zom-B-Matic: Pull the switch! Pull the switch! Pull the...!

Electronic Arts Ships Virus

Star Command for the Atari ST has a software virus present in the code. We have recalled this product ... Please contact Electronic Arts at 1-800-448-8822 for assistance in returning this product for version 1.1. If you have a virus "stamper," you may prefer to run the disks through it ... If you have any questions, please call Electronic Arts at the number above or SSI at 408-737-6800 and ask for Customer Support.

Carole A. Johnson, Manager, Customer Support

STARTING BLOCK

by Richard Gunter

'Tis the Season...

... to do something about the Christmas shopping list.

Hence, this column--for you folks who have computer nuts on your list. For the record, most of the the items mentioned here should be available for $30 or less.

The Mundane Stuff

Everybody finds some mundane, practical, "you need it" stuff under the tree: handkerchiefs, ties, socks, underwear, and such. Computer users are no exception. There are items that we "need" but only purchase for ourselves when we must.

Paper for the printer, printer ribbons, floppy disks, maybe pin-feed labels (for those who use 'em). Make sure you know the brand and model of the printer so everything will work properly. You can find these "staple" items at any computer store and most office supply stores.

Most home computer printers use letter-size continuous forms, that is, each sheet is connected to the next and perforated for separation. There are also perforated strips along the sides, with holes punched at regular intervals. I prefer the so-called "laser cut" paper; the perforated strips remove easily and cleanly, leaving practically no trace. Good for most purposes, including correspondence.

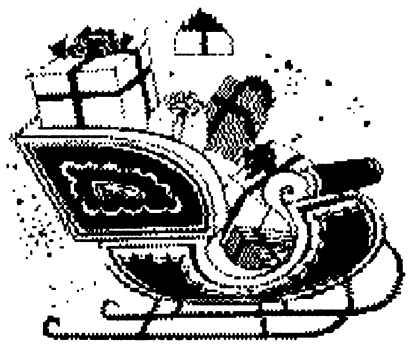
It's critical that printer ribbons be made to fit your giftee's specific printer (brand and model). A ribbon made for an Epson is useless on a Panasonic printer. It should be safe to shop for price on both.

Floppy disks come in two sizes (5.25 inches and 3.5 inches), and several density ratings. The two sizes look quite different. It's probably best to find out what brand your giftee uses and match it; some people get pretty picky about their floppies, so shopping for price may not be entirely safe. Sneak a look at a box and make a note of the brand and any other legend on it.

Books

Lots of room to operate here, and conventional bookstores often have sizable computer book sections. If your giftee is a heavy user of certain types of software, a text on better ways to do that sort of work may be helpful.

For desktop publishers, there are some pretty good generic books on how to do better page design. Maybe a book on designing better



spreadsheets or databases. A programmer might appreciate an advanced text on a favorite programming language, or a hardware or operating system reference. Unfortunately, books on specific Atari software are rare. Best bet is an Atari computer store.

Books are also published on some of the more popular games, including hint books for the puzzle-oriented games like Dungeon Master and Ultima. There are even books on tactics for some of the military flight simulator games.

Communications

A new modem is a bit pricey to shove into a stocking, but if your giftee already has a modem, perhaps a CompuServe or Genie starter subscription might be appreciated. Watch out, though. This could lead to higher charge card bills. Those commercial timesharing networks can become addictive...

Dust Covers

Dust covers are available for most computers and peripheral devices--even mice.

Disk Storage

Most computer users have an ever-growing collection of floppy disks. Creates a constant storage hassle. Disk storage boxes come in all shapes and sizes, and a wide range of prices. Naturally, 5.25" and 3.5" storage boxes are quite incompatible, so make sure you get the right type.

Take a look around the computer area to get an idea of what might fit in. I like the wooden ones with rolltops for disks I use often--the box sits near to hand on top of the desk. For disks I don't use often, I have a different sort, stacked semi-neatly out of the way. Avoid the excessively "gimmicky" devices--especially those that don't close completely. Disks need to be protected against dust.

If your giftee carries floppy disks around a lot, you might consider a disk wallet. The smaller ones fit fairly well in a jacket or coat pocket, and the larger ones fit nicely into a briefcase.

Cleaning Up

Exposed equipment gets dirty no matter how hard you try, and some items are worse than others. Keeping the inside of a printer clean is probably the worst. Tiny fragments of paper and dust accumulate quickly, so a small vacuum that can reach into tight spots might be nice.

Check with your giftee (or the technician at the computer store) about disk drive cleaning kits. Some people use them, others avoid the things. Mechanical mice (like the Atari rodent) also accumulate dirt inside the mechanism, so a mouse cleaning kit might be useful.

Hardware

Major hardware items are probably not good to surprise your giftee with. Most users are kind of picky about adding major enhancements to their systems. However, there are some less expensive pieces of equipment that might be good gift choices.

Like switch boxes that allow both a mouse and a joystick to be connected to an Atari ST simultaneously. Very nice for games.

If there are two monitors near the computer, you might ask how your victim switches from one to the other. If this is done by moving wires around, there's a switch box that allows both monitors to be hooked up once and for all, and er, switched.

Practical Solutions makes switch boxes for the Atari ST, and there are other manufacturers. Consult with your dealer to find one that will work with your giftee's system.

Joysticks

The serious gamester is always looking for the perfect joystick. A friend of mine swears by the old standard Atari joystick (costs $10 or less). Trouble is, they get broken. Hint, hint. Fancier joysticks can cost $20 or more.

People who play flight simulators like *Gunship* or *Falcon* often prefer a joystick that sits firmly on the desk and has a pistol grip handle. A fighter pilot told me that the best place for the trigger is on the grip where the index finger can work it. Faster, he said, and I'll listen respectfully to anyone with his experience.

Some people like small, sensitive, handheld joysticks. Best to investigate preferences. There's even a "joystick" that looks like an airplane's control yoke. (Sorry, I don't know how well it works, and it's outside our price range anyway).

By the way, make sure you get a joystick that will work with your giftee's computer. IBM and Apple joysticks won't work with an Atari computer, and vice versa.

Software

Well, naturally software. Games, of course, and other things. Check the computer stores and their prices. Discounts vary. Be careful to avoid buying duplicates, and tailor the choice to the giftee. Don't buy me an arcade game, thanks. I'm too old and too slow.

On the practical side, there are a number of inexpensive software items that are more than worth their price. Some of these programs are so good and so popular with Atari users that your giftee may already have some of them.

The *Universal Item Selector* is a substitute for Atari's file selector. Inexpensive, and an excellent product.

Tuneup! or another *defragger* is another possibility, if your giftee has a hard disk drive and doesn't have such a program.

Almost anything by CodeHead, a small company in California, is worth considering. Their prices are reasonable, and the products work exceptionally well.

For the mathematically inclined, one of our own Current Notes authors has a product called *El Cal*. A powerhouse. I bought my copy for a little under $40--just outside our working range, but worth it if one does a lot of numerical or statistics work at home.

Miscellaneous Stuff

You can also look for some inexpensive odds and ends. Like a forms ruler (any office supply store), or a disk marking pen. The latter is essentially a felt tip pen that makes a rather thick line. Handy for labelling floppy disks.

A mouse pad is a rubbery mat that gives the electric rodent a comfortable place to run. You might check on whether the old one is getting, well--ratty--looking.

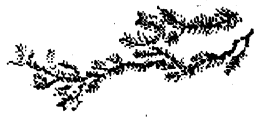
Colored paper and ribbons might be appreciated for making fancy flyers and such.

A typist's copy holder is a handy device. There are several sorts. Some attach to the computer monitor and some sit on the desk. Look at the work area around the computer. If the area is very cramped, the type that fits on the monitor might work best.

Computer stores (believe it or not), and gift shops might be a good place to look for novelty items such as jewelry, coffee mugs, and the like. I saw several jewelry items at Atarifest, and a few at computer stores, made from castoff electronic parts.

As a last resort, your computer store might be willing to sell you a gift certificate to stuff into that stocking. Personally, I don't like gift certificates, but if you're desperate...

That's all for this time. See you next year!



May this holiday season bring you joy and peace.

The Junkyard Pussycat

by John Barnes

The Life of a Computer Critic

Open Season

The setting is a small study overflowing with software packages, floppy discs, and printouts. A somewhat disheveled tom cat is sitting in front of a computer terminal with a can of beer and an overflowing ashtray at his left elbow.

After sidestepping a recent assassination threat the Junkyard Pussycat sat down with one of his other personalities and discussed the whys and wherefores of being a computer critic. Their dialogue follows:

JP: Have you ever had anybody threaten to come after you with a gun?

JB: (John Barnes, occasional *Current Notes* reviewer) Can't say that they have, although the publisher gets occasional mail from people who think their pet software has been given short shrift. It's gratifying to know that someone reads the stuff and gets excited enough to reply.

Maybe you ought to tone your stuff down. After all, you sometimes get carried away with the rhetoric.

JP: Hey, I take my job seriously. Both of us have to protect the computer consumer from bad products. Besides, you get a lot more space than I do and you can afford the 'On the one hand ... and on the other hand ....' stuff. I've got to get my message out and go on to something else.

Guardians of the Public Interest

JB: We're probably both biting off more than we can chew on the consumer protection issue. There are more of them than there are of us and they always have the advantage of surprise. They can buy their way into print with hyped up ads before we ever get a chance to work through a new product. Some of them seem to have captive reviewers who write their stuff from the press releases.

Myself, I never criticize something that I wouldn't have any use for if it worked properly. I sure don't write about if I haven't tried to use it for its intended purpose.

Don't get too upset about the space thing, though. A review has to have this patina of objectivity and that demands a lot of research. Commentators are more free to speak their minds.

JP: You certainly see more stuff than you can possibly digest. How do you set priorities?

JB: The interest filter helps a lot. I tell the editor to let someone else do the job if the stuff isn't up my alley. Market impact is another factor. Things that no one is interested in get a back seat. The hype is another factor. If the distributors make a lot of misleading claims they are setting themselves up for some close scrutiny. I try to avoid things that aren't ready for the light of day unless the developer keeps hounding my editor.

Sometimes I'll go looking for a product that looks exciting. Other times I'll spend my own money and find something that really turns me on (or off). In such cases I simply must give other people the benefit of my experience.

The Broadway Analogy

JP: Our editor gave me a good analogy the other day. He pointed out that these guys ought to be prepared to suffer like a playwright does when his play gets mugged by the Broadway critics. We can kind of lay back while they're playing in Philadelphia and Boston.

JB: It certainly is true that once they've taken over the stage they ought to be prepared for rotten eggs as well as roses. It looks to me like some of them never even put on tryouts or they get audiences that lack discrimination. I also get the feeling that some authors are so wrapped up in their own thing that they never try their competition's offerings. Or maybe the Atari theatre is more off-Broadway than on-Broadway.

Also, not everything that plays well in London or Dusseldorf is going to make it on the American stage.

The theatrical analogy can only go so far, though. You and I are not usually looking for entertainment in the software we test.

JP: That's true enough. Productivity software either produces or it doesn't, and the only way to tell is to put it to work on a real project. I usually try to offer a valid alternative when I pan something. It's a good idea to give the consumer the up side of an issue and it doesn't hurt to give good developers some exposure that they might not get otherwise.

JB: That's a risky business, though. It might affect your objectivity if you get too cozy with these guys. For myself, I just try to get the facts. The editor keeps suggesting that I talk my findings over with the authors. Sometimes it works and sometimes the guy is so full of himself that he's not ready to hear anything but praise.

Other times I get the impression that the guy I'm talking to has never even seen the product.

JP: Yeah, the old "write down the problems and send us a letter" syndrome. I bet the real author is off in Europe somewhere and the technical rep in the USA hasn't figured out the software either. Meanwhile, they keep advertising.

JB: You know, given the record on continued support of many Atari products it's hard to give the guy the benefit of the doubt. All too often the product gets only one release. The developers are obviously not ready for the inevitable rework. This is what sets the professional stuff apart from the other. It really is sticking your neck out to say "They're working on the problem." Developers really shoot themselves in the foot when they release a product before its time.

JP: You'd be tempted to ignore it except for the fact that they already have their advertising machines in high gear with stuff like 'Most Sophisticated,' 'Unmatched Features', etc. We have to protect the consumer.

JB: Andrzej Wrotniak says that many developers are so undisciplined in their software writing that they couldn't rewrite the stuff even if they wanted to. You can only judge whether they're sincere. Often as not they'll say 'no way, the product is perfect' or 'we're not selling enough to pay for changes'. All you can do is report those facts to the public.

Visit from the Shades

A shadowy form slowly gathers substance in the corner of the room behind the laser printer. He is clad in blue jeans and tee shirt. He cradles an AK-47 in his arms. He is also sporting a bandaged foot.

JB: Who are you? How did you get in here? How come the dogs didn't bark? What do you want?

JP: Calm down, you can't be harmed by a ghost AK-47. Looks like one of the guys you clubbed with a review.

GDOS: You see before you the Ghost Developer of Sunnyvale. I get my kicks out of rattling the Atari guys' cages while they're trying to find the bugs in UNIX for the TT. Your other half there made me go off and seek honest employment when angry customers started demanding refunds after he carved up my combination font design utility and Renaissance role playing game. I used to think I was a pretty hot software artist when I was writing games and cracking protection schemes in college.

JB: I remember that review. You could have saved yourself a lot of wasted effort if you'd spent a little money and bought the products you were trying to replace. Besides, the fonts kept getting overwritten with faces from the game characters.

GDOS: Picky, picky. You didn't give me enough credit for the pretty pictures and I couldn't afford to reprint the documentation after you pointed out that it didn't jibe with the version you had. I had to get a job with a defense think tank and they shackled me to a **IX box all day long.

I wrote a great flight simulator for them, but they really wanted a database for cataloguing photos from spy satellites. Boring stuff, although we had some great closeups of Raisa Gorbachev's clothesline.

JP: You're young yet. I'll bet you don't even remember the 8 bit machines. Learn a real computer language like COBOL or FORTRAN. Get yourself some decent clothes, and soon you'll be able to afford a Honda and a girlfriend. Maybe with your **IX experience they'll let you play with X Windows.

GDOS: Maybe the Macintosh world needs a good icon designer. They like to fool around with fonts, maybe I'll port my program over.

JB: That's a pretty tough environment to program in. There's a lot more competition, much of it well heeled. The Apple guys are also pretty fierce about enforcing discipline. The MS-DOS guys are just getting into graphics. Maybe you'll have better luck there.

GDOS: I don't like the way the mouse works on those machines. Also, all that corporate stuff boxes me in.

JP: Maybe so, but it's better to sell 10,000 copies of a program for $50 than it is to sell 1,000 copies for $100. So what if 50,000 other people use pirate copies. For half a mil you can get a Volvo and a mortgage and put the kids in private school. But don't try to reinvent the wheel, they already have those in all sizes.

GDOS: You geezers are all alike. No faith in the young. I'm off to find my fortune. Just you watch.

Exit GDOS.

JP: You certainly have some kinky friends. He'll probably wind up teaching computer science. I think it's time to get some sleep.

JP saves the file he was working on and powers down the machine.

JB: Hold it right there, Pussycat. You can't just run off like that. You know as well as I do that all of this philosophizing is just a front for the fact that what you really crave is acceptance. You're a big boy now. Getting slings and arrows hurled at you for the stuff you put in print is just part of the game.

JP: True enough, but these guys want equal time. As far as I'm concerned they had their innings when they bought their ad space. Let 'em write a letter to the editor if they think they've been mistreated.

JB: I think we ought to put an end to this. Journalists yakking about journalism is almost as bad as playwrights doing plays within plays. They don't know enough about the real world to make it worth the audience's time, so they have to write about the make-believe world that they live in.

Besides, we've got a deadline to meet.

The house lights dim and go up on a now empty study dominated by a blank computer screen.

BEST OF THE QUEST II

A Buyer's Guide to Role-Playing Games for the ST

The Wraith of Weak Sales

Although there was some doubt about it last year, Best of the Quest has obviously returned, thereby qualifying it as an annual Current Notes feature. The idea for a buyer's guide to computer role-playing games was a must-do one year ago. There were nineteen games to rate, but just as importantly, ST versions of fantasy classics were often the best showpiece of leading software houses like Origin and Strategic Simulations. Despite this, the wraith of weak sales figures made its presence known throughout the industry. The most recent statistics for disk-based entertainment software show Atari with less than 2% of U.S. sales. Amiga has climbed to 10%, with IBM, naturally, grabbing a quorum at 51%. It's over, folks.

It's Over There, say other folks. Most ST gamers have turned their attention entirely upon the European scene, where Atari's base is strong enough to insure activity for another two or three years, at a minimum. But Europe's gamers are entranced with frenetic sprites and multiple vicarious deaths by collision detection. The consequent, heavy-handed approach of Old World publishers with CRPGs has been well documented in the last two *There and Back Again* columns. Good as it may be, say stateside fantasy gamers, we don't want your Blood Money. Then along came Mirrorsoft with *Bloodwych.*

Yes, it borrows much from *Dungeonmaster,* but *Bloodwych* is the first import this writer has seen that marries Europe's superior graphic touches with some understanding of CRPG nuances. Whether or not it sustains its early formidable impressions, *Bloodwych* has opened provincial minds, and brought with it the inherent excitement of Possibility.

The 1989 CRPG Panel

But game discussion, for this month, belongs to *Current Notes* CRPG ratings panel. Herewith is an introduction to this year's members, most of whom participated last year.

ALF – Anthony L. Farmer is a programmer for IBM and wrote the PD version of *Stocks and Bonds 3.0* for the ST, besides being an avid CRPGamer.

AG – Alfred C. Giovetti has more roots in fantasy gaming than anyone this writer knows. Al was a beta-tester for Sir Tech and Muse back in the early years, and has also play-tested for SSI. He has his own company, Computer Wizards, and is also associated with Joppa computers in Baltimore.

HN – Haywood Nichols has been a principal play-tester for Omnitrend's *Breach* and *Paladin* games, and has designed several of the original scenarios in each package. Woody is currently beta-testing *Breach 2,* which he hopes will be out by Christmas.

JM – Jose M. Mesa is arguably the best CRPGamer on GEnie's ST BBS. Nobody finishes new games faster, and nobody is more prominent on the message boards. An expert on *pc-ditto* gaming, currently Jose is a commissioner for GEnie's Fantasy Football League.

PS – Peter A. Smith, known on GEnie as CAPT. COOK, was a frequent contributor to the now defunct *ST-Log* magazine, and has also written for *Current Notes.*

RM – Robert Millard writes the only CRPG dedicated column for the ST in the known and nether worlds.

Rounding out the gang of eight are **DK** – Dennis Kamber, a principal among Chicago user groups past and present, and newcomer and MIDI aficionado **EB** – Edward S. Baiz Jr.

Ten games join the list of nineteen that were rated last year. The older games were re-rated to reflect current standards and to aid beginners to the genre. Each game is rated on the ten scale for graphics, content, and difficulty. Some basic data is given for each title, followed by the date it was reviewed in CN. Comments of the panel experts then summarize the game. Lastly, fourteen quite unofficial "Best of" awards were chosen for excellence in special categories.

Graphics.....6.5
Content.....4.7
Difficulty.....6.6

Single character, first person perspective game, medieval city setting (1/89)

AG: "Set in a city of realistic proportions, you see the sun rise and set, experience rain, snow, thunder and lightning, cold and heat. The only criticism was that the game was too realistic. To learn spells you had to study daily for

weeks. Time crawled, and you had to sleep, go eat in bars, get jobs, and work for money."

DK: "Enjoyable to play, but the only real purpose was to build a character for sequels that don't appear to ever be any sort of *Reality*.!!"

AUTODUEL

Graphics.....3.3
Content.....4.0
Difficulty.....5.0

Single character, overhead perspective, post-holocaust highway setting (9/87)

JM: "The worst and most pathetically implemented CRPG I have ever played."

HN: "I gave it a –1 on content, and the only reason I gave it a two on graphics was that it's in color."

BARD'S TALE

Graphics.....8.0
Content.....6.8
Difficulty.....7.7

Six party members, first-person view, medieval town and its dungeons.

RM: "If *Dungeonmaster* didn't exist, this might still be considered state of the art. Was the closest thing to D&D on the computer until SSI/TSR games came along. *Lots* of mapping, and very linear."

JM: "...some great monster pics."

BATTLETECH

Graphics.....7.0
Content.....6.0
Difficulty.....4.8

Six characters, overhead view, futuristic world with Imperial walker-like vehicles

CC: "Infocom's first RPG shows promising signs, but oddly, the plot is very shallow and the quest too short."

RM: "Good graphics, and the Japanese animation close-ups are a nice effect."

ALF: "How original. They developed the plot *first!*"

Bloodwych

Graphics.....9.0
Content.....7.7
Difficulty.....8.3

Four characters, first person, dungeon setting

JM: "Great and only two-player CRPG. Very Dungeonmasterish. The combat is not very exciting, though."

RM: "As a rule, European games are more flawed and more arcadish than U.S. games. *Bloodwych* is an exception which is at least as good, if not better, than *Dungeonmaster*."

DK: "*Bloodwych* is comparable in quality to *Dungeonmaster*, but even more enjoyable due to its non-linear nature."

BREACH

Graphics.....5.8
Content.....5.7
Difficulty.....5.8

Five characters, overhead view, multiple sci-fi settings (12/87)

AG: "A versatile game...the scenario builder is extensively used on GEnie and other BBSs...The play system is unique and highly enjoyable, bringing a (squad-level) wargaming aspect to CRPGs."

DK: "More wargaming than CRPG, too slow a pace for my tastes."

DEATHBRINGER (GALDREGON'S DOMAIN)

Graphics.....7.3
Content.....3.8
Difficulty.....5.3

Single character, first person, indoor and outdoor medieval settings (10/89)

RM: "Graphics rating would be higher if DB had any animation. Without it, the game world feels very flat. Shallow game play, too."

DK: "Looks good, but I found the game play a bit lacking."

DEMON'S WINTER

Graphics.....5.0
Content.....6.2
Difficulty.....6.8

Five characters, overhead view, medieval setting, large outdoor world with dungeons. (9/89)

JM: "A very interesting CRPG system but it seems like they ran out of ideas midway through the game."

RM: "A huge world to explore by land and sea. Methadone for Ultima junkies."

DK: "SSI's CRPGs are like a favorite restaurant, never truly exciting, but always comfortable and enjoyable. You know the quality will be there and be consistent."

Dungeon Master

Graphics.....9.8
Content.....7.8
Difficulty.....8.5

Four characters, first person, dungeon setting (3/88)

JM: "The Best!"
CC: "The standard..."
EB: "...the best..."
AG: "FTL's masterpiece."
RM: "No NPCs? Who cares?"

HEROES OF THE LANCE

Graphics.....8.1
Content.....5.3
Difficulty.....6.4

Eight characters, transverse scrolling world, dungeon and ruins setting (1/89)

EB: "A cross between *Dungeonmaster* and Psygnosis' *Barbarian*."

ALF: "Great potential, for a game that basically s-----d."

JM: "Interesting change of pace."

HILLSFAR

Graphics.....5.8
Content.....6.0
Difficulty.....4.6

Single character, multiple perspectives, medieval town setting

RM: "The town looks a lot like *The Bard's Tale's* Skara Brae. The lockpicking sequences are great fun and feel realistic, but the game's pause feature should've been disabled during this part. Its use eliminates the suspense."

CC: "SSI should hang their heads in shame for releasing this. *Hillsfar* is more an add-on to *Pool of Radiance* and *Curse of the Azure Bonds*, neither of which has yet been released for the ST. *Hillsfar* claims to be an AD&D product, but allows no level increases, weapon changes, or magic abilities. The graphics rating got blasted because the inside of a house and the inside of a shipwreck look exactly the same."

DK: "Fun game, CRPG/arcade but a good mix. Would have liked the story to be a bit deeper."

MOEBIUS

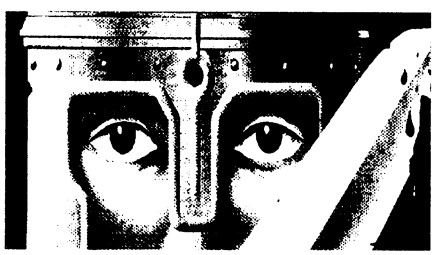
Graphics.....7.0
Content.....6.0
Difficulty.....7.2

Single character, overhead view, Oriental, mystical setting

DK: "Wonderfully animated combat."

JM: "I liked the combat, the rest s----d."

AG: "Many have wrongly maligned this excellent game...a unique play system...the oriental setting and graphics are worth the price of the game...a welcome diversion from the usual hack and slash fare. You have to give this one a chance."



PALADIN

Graphics.....6.3
Content.....5.8
Difficulty.....6.0

Five characters, overhead view, multiple medieval settings (11/88)

JM: "*Breach* with fantasy icons."

ALF: "Best in its class! User interface could use some work, though."

RM: "It's hard to get any credit for doing tile graphics anymore. Molyneaux's work is the best small scale art I've seen. I wish the game had more D&D aspects, though."

PHANTASIE I

Graphics.....5.7
Content.....6.8
Difficulty.....6.3

Six characters, overhead view, medieval outdoor and dungeon settings (5/87)

JM: "Somewhat dated. Interesting plot."

RM: "All *Phantasie* games offer 70–80 distinctive monster graphics, the most of any game. When the play gets dull, the next dungeon full of new monsters usually revives my interest."

CC: "A CRPG in the classic vein. I loved not having to map the dungeons."

PHANTASIE II

Graphics.....6.0
Content.....6.6
Difficulty.....6.6

Six characters, overhead view, medieval outdoor and dungeon settings.

RM: "Same graphics and play system. Different plot."

ALF: "What? You mean I don't get a new manual with this one?"

PHANTASIE III

Graphics.....7.6
Content.....7.0
Difficulty.....6.4

Six characters, overhead view, medieval outdoor and dungeon settings (6/88)

CC: "Higher rating than *Phantasie I* due to its increased complexity."

JM: "Very good graphics, repetitive story."

PIRATES!

Graphics.....7.2
Content.....8.1
Difficulty.....6.7

Single character and crew, multiple views, 17th century Caribbean setting

CC: "Though not a traditional CRPG, *Pirates!* has much to offer, including an extremely strong replay value. Add to that the historical accuracy, some action sequences, and great endgames, and this is another 'must have' in my book."

AG: "Shorter games with multiple scenarios. Engage in ground combat, one-on-one sword fights, ship-to-ship cannon battles, and ship-to-port cannon battles. Get involved with the intrigue of the diplomats and the boudoir of their daughters."

QUESTRON II

Graphics.....6.8
Content.....5.5
Difficulty.....5.5

Single character, mostly overhead view, multiple medieval settings

AG: "The game system is outmoded and archaic."

DK: "One of SSI's rare disappointments."

RM: "Graphics are excellent, but blurry. Probably developed (and look fine) on the first ST monitors that had superior dot pitch."

RINGS OF ZILFIN

Graphics.....4.8
Content.....5.5
Difficulty.....5.7

Single character, multiple perspectives and medieval settings (12/87)

JM: "Terrible interface and dull story."

DK: "Spent too darn much time WALKING!!"

RM: "I seem to be the only one to like Rings. It looks like *King's Quest*, has lots of animated events, and requires good note-taking. Very easy, once you get started, and a little on the cute side. From the author of *The Magic Candle*."

AG: "Many stories are told by some of the NPCs you meet."

ROADWAR 2000

Graphics.....5.4
Content.....5.3
Difficulty.....4.8

Overhead perspective, Road Warrior theme set in Continental U.S. (11/87)

JM: "Very enjoyable and well-paced game."

CC: "The battle sequences were almost a game in themselves, but too soon grew tiresome. After that, there wasn't much to hold me in the game. Still, an original idea."

ROADWAR: EUROPA

Graphics.....5.4
Content.....4.6
Difficulty.....4.8

DK: "*Roadwar 2000* with a different map, it lost points for doing the exact same thing a second time!"

ALF: "Didn't I just buy this game?"

STAR COMMAND

Graphics.....4.7
Content.....8.7
Difficulty.....7.0

Eight party members, overhead perspective, galactic setting.

JM: "The best science fiction CRPG available. It has superior character and ship development and a very good story. Its only weakness is its interface and its less than exciting graphics."

HN: "Like this one. Combat both in space and with your squad of men was handled well."

SUNDOG

Graphics.....7.6
Content.....7.8
Difficulty.....7.5

Single character, overhead perspective, galactic setting (4/86)

JM: "Still the best single player CRPG available. Also has the best interface ever devised for a CRPG."

CC: "Having everything from on-foot shoot-outs to glorious space battles, *Sundog* is sure to please."

EB: "The first excellent game for the ST."

TIMES OF LORE

Graphics.....6.2
Content.....5.0
Difficulty.....4.6

Single character, overhead perspective, medieval setting (11/89)

RM: "Graphically, it's *Gauntlet* meets *Ultima*, with a nice story. But watch those monsters: orcs, ghosts, slime – and BUGS!"

JM: "A big bust. Very simplistic."

ALF: "S-L-O-W."

ULTIMA II

Graphics.....4.3
Content.....5.7
Difficulty.....6.7

Single character, overhead perspective, medieval and space setting

CC: "In its day, U2 was a great program, but it really shows its age now. Go for U3 or U4 instead."

RM: "A terrible port, best played in monochrome."

ULTIMA III

Graphics.....5.5
Content.....7.3
Difficulty.....6.9

Four characters, overhead perspective, medieval setting (5/87)

CC: "A sprawling world awaits the U3 adventurer. This is a classic."

JM: "Excellent story and pacing."

ALF: "One of the all-time greats."

Ultima IV

Quest of the Avatar

Graphics.....6.1
Content.....9.3
Difficulty.....8.3

Eight characters, overhead perspective, medieval setting (4/88)

JM: "The best plot and pacing of any CRPG ever written."

DK: "The story remains an integral part of the adventure, while most other games *tell* you a story and then let you hack and slash to finish it."

RM: "I still boot up U3 and U4 just to 'live in the game world' for a short while. *Ultima* weaves a spell of its own."

J.R.R. Tolkien's WAR IN RIDDLE EARTH

Graphics.....7.5
Content.....7.0
Difficulty.....4.7

Variable party size, overhead and transverse scrolling perspective, Middle-Earth setting (5/89)

EB: "Recommended for any Tolkien fan."

CC: "The content gets a great rating because *everything* is in there, but difficulty fails...a single ringbearer can usually sneak in through the pass east of Mt. Doom, while the forces of Mordor decimate the 'good' armies."

RM: "Exquisite, reverent, but with an algorithmic Achille's heel. Very complete game world, but better 'toured' than played."

WIZARD'S CROWN

Graphics.....4.6
Content.....6.2
Difficulty.....7.0

Eight characters, overhead perspective, medieval setting

JM: "It has the best combat system ever created for a CRPG, not to mention the most realistic. It also has the worst interface I have ever seen for a mouse-driven game."

ALF: "A wargame by any other name..."

RM: "*The Ancient Art of Bore.*"

The Neo-Dark Ages?

As we head into a new year and decade, a Best of the Quest III seems an uncertainty. Some games thought very near completion are experiencing some unusual problems. Origin and Microprose U.K are in litigation, placing *Ultima V* in abeyance. Rumor has it that U.S. Gold found a virus in their development system, delaying SSI's *Pool of Radiance*. The *Dungeonmaster* scenario, *Chaos Strikes Back*, is near, FTL says, but rumors about the designers' dissatisfaction with it continue. *Windwalker*, the sequel to *Moebius*, looks promising, however Origin isn't known for timely conversions. But what happens even after these appear? Will *pc-ditto 2* support color and sound enough for gamers? Is Bloodwych the hallowed harbinger of quality CRPGs from Europe? This will be a telling year. And one tiny indicator of Atari's future will be whether the only CRPG dedicated column for the ST in the known and nether worlds survives.

BEST OF THE QUEST AWARDS

Category	1st Place	2nd Place
BEST GAME:	*DungeonMaster*	*Ultima IV.*
BEST HYBRID GAME:	*Pirates!*	*Paladin.*
BEST STORY LINE:	*Ultima IV*	*War in Middle Earth*
BEST GRAPHICS:	*DungeonMaster*	*DungeonMaster.*
BEST COMBAT SYSTEM:	*Wizard's Crown*	*Ultima IV.*
BEST MAGIC SYSTEM:	*DungeonMaster*	
(Tie for 1st place)	*Ultima IV*	
BEST MONSTERS:	*DungeonMaster*	*Bard's Tale.*
BEST INDIVIDUAL MONSTER:	*Dungeonmaster's*	*Khisanth from*
	Red Dragon	*Heroes of the Lance*
BEST SOUND:	*DungeonMaster*	*Deathbringer.*
BEST INTERFACE:	*DungeonMaster*	*Ultima IV* (Keyboard)
BEST ARCH-FOE:	Nikademus from *Phantasie*	Chaos from *DungeonMaster*
BEST ENDING:	*Phantasie III*	
(Tie for 1st place)	*Ultima IV*	
BEST PUBLISHER:	SSI	FTL.
BEST LEFT UNPLAYED:	*AutoDuel*	*Times of Lore*

TEX on the Atari ST

BY HORACE MITCHELL

A desktop publishing program for the ST for free? A program designed from the ground up to set equations and design books, but which is also used to typeset music, chess games, and TV Guide? A program which includes a font creation program and font design language? A program whose source code is published, whose userbase is world-wide, and which runs on a Cray, VAX, PC, Mac, Amiga, or just about any Unix system you care to name?

All of these statements describe TEX (pronounced *tech*) and METAFONT, a system for typesetting created by Donald E. Knuth. This system is documented in the five-volume series *Computers in Typesetting*, by Knuth, published jointly by the American Mathematical Society and Addison-Wesley Publishing Company. Volume A is *The TEXbook*, B is the TEX program, C is *The METAFONTbook*, D is the METAFONT program, and E is about the Computer Modern family of fonts.

Copies of the TEX and METAFONT programs may be freely distributed and compiled on any system with enough capacity. This has led to commercial TEX implementations, such as PCTEX for IBM compatibles and *Textures* for the Macintosh, and public domain implementations for many machines. There are commercial Atari ST versions of TEX in Europe, but only recently has a fairly complete public domain implementation of TEX for the ST become available in this country.

Using TEX

TEX is not a what-you-see-is-what-you-get (WYSIWYG) desktop publisher. Rather, it is a mark-up language; the user creates an ASCII file containing plain text and special TEX commands, and the TEX program inputs this file and creates a second file (a *device-independent* or DVI file) containing printer commands. A second program is run on this file to produce the final output, on a printer or a screen. For example, the line

```
\frac{\pi}{2} = \int_{0}^{\pi} \sin^{2} x \: dx
```

produces the equation

$$\frac{\pi}{2} = \int_0^{\pi} \sin^2 x \, dx$$

when processed by TEX. The backslash (\) is TEX's command character and signifies to TEX the beginning of a TEX command or macro. The underscore (_) and caret (^) represent subscript and superscript respectively, and curly braces ({}) are delimiters for arguments.

One of the major virtues of TEX is that it is knowledgeable about the structure of equations. In the preceeding example, it wasn't necessary for the user to position the upper and lower limits on the integral sign $\int$. TEX understands that a subscript and superscript on an integral sign belong in different positions than those on the sine function, just as it understands that an integral sign is large in an equation but small within the text of a paragraph. In fact, the only help TEX needed with this equation was the command \:, which added the extra space between the x and the dx.

TEX really shines when it comes to macros. I could type `Current Notes` whenever I need it, or I could type the command `\def\cn{Current Notes}` at the beginning of my document, and simply type `\cn` whenever I need "Current Notes." The pre-defined macro `\TeX` enters the TEX logo into a document. Macros can take arguments, can call other macros, and can test conditions. For example, the macro which puts the footer line at the bottom of this page checks whether the page number is even or odd and constructs a different footer line in each case. TEX is actually an interpreter for its own macro language, a language designed explicitly for desktop publishing.

When the TEX program runs, it automatically loads a set of macros to make document design easier. This set is called the *plain* format. Soon after TEX was written, a TEX user named Leslie Lamport created a more extensive set of macros which he called LATEX, and which is described in the book *LATEX: A Document Preparation System*, also published by Addison-Wesley. LATEX makes the design of entire documents easier by defining *document styles* which pre-define the layout of a document. For example, I used LATEX for this article by creating a Current Notes style. That style set up the double columns, the font sizes and styles, the footer lines, etc., for this document. Using LATEX, I only had to enter `\section*{Using \TeX}` to get the proper font and spacing for the heading for this section.

A newcomer to TEX could purchase Lamport's book alone and use TEX very efficiently. The average user would probably never need the complexity of the entire TEX-METAFONT sytem as described in Knuth's books, but he could advance to *The TEXbook* if features unavailable in LATEX were needed. LATEX itself includes the ability to automatically create an index or table of contents, to keep track of a bibliography (BIBTEX), and to create slides for overhead projection (SLITEX). There is also a way in LATEX to create simple figures and diagrams. The boxed title for this article was created in LATEX.

Viewing and Printing TEX

Once TEX has created a DVI file from a user's input, a program is needed to produce a final output from this file on a specific output device. Such a program is called a

DVI output driver, and must be capable of producing an output that looks the same as any other driver (except for the resolution of the device). The driver may have additional features, such as the ability to rescale the document or change the margins, or the ability to include special graphics such as bit-mapped pictures in the document. The ability to include special graphics is a relatively uncommon feature in public domain drivers for personal computers, since there is no common standard for the manner in which these graphics are included. Most drivers are targeted at particular devices, but there even exist drivers to produce Postscript output.

There are several very good output drivers for the ST. There is a driver for the Atari laser by Avy Moise and Tyler Ivanco which is the fastest output driver for that printer that I have seen. The authors bypassed both the Diablo emulator and the GDOS laser driver to write directly to the laser. Once the fonts for the output are loaded, there seems to be almost no page composition time between output pages. These authors have also produced DVIST, a previewer which displays the final output on the Atari monochrome screen (there is no color screen previewer). I also have ST DVI drivers for the HP LaserJet and the HP DeskJet, but have not been able to test them.

An Epson driver also exists which produces reasonable output (although slowly), but it has the flaw that the output is incorrectly scaled. The Epson high resolution is 240 dots-per-inch (dpi) horizontally and 216 dpi vertically, but the driver assumes 240 dpi vertically. As a result, all output is expanded by a factor of 10/9 vertically. This is practically unnoticeable if the vertical margins are adjusted, but a proper DVI output driver is supposed to reproduce the final output *exactly*. Hopefully someone may be able to fix this problem since the source code to this driver is available.

Fonts for TEX

No desktop publishing program would thrive without an adequate number of fonts and a way to create more at will. Knuth designed METAFONT to create the fonts for TEX. METAFONT is very similar to TEX, in that METAFONT reads an ASCII file containing commands to create a font and outputs a font file for use by TEX. METAFONT commands allow a user to draw the characters in a font by selecting a *pen* with a particular shape and using it to draw along a *path* consisting of line and curve segments. METAFONT has commands which take into account device peculiarities such as unequal horizontal and vertical device resolutions and device pixel characteristics (e.g., 9-pin printer dots overlap severely while laser dots do not). METAFONT also has a macro capability similar to TEX, and is a full-fledged font creation language.

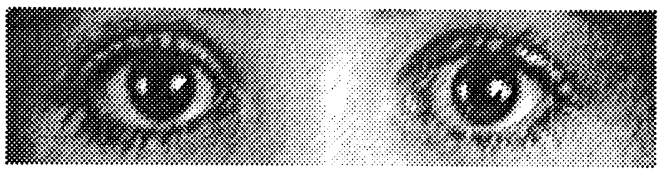
The standard fonts used by TEX are called the Computer Modern fonts. These fonts were designed by Knuth using METAFONT and are described in detail in Volume E of *Computers in Typesetting*. The text font you are reading now is Computer Modern Roman and the headings for each section are Computer Modern Bold Extended. TEX also routinely uses different Computer Modern fonts for *emphasis*, mathematical symbols (x instead of x), TITLES, `typewriter-style text`, and *quotations*.

The creation of an entire font from scratch is a complex job, especially in METAFONT. However, METAFONT has several important uses even for the novice. Since the METAFONT files to create the Computer Modern fonts are readily available, the user can use METAFONT to create any size TEX font for any device. TEX's DVI Output drivers traditionally require a separate font file for each size of each font, and bold and italic fonts require their own separate files, so a full font distribution for a 300 dpi device can easily run to five megabytes of files. METAFONT allows a user to easily create the necessary fonts as they are required.

METAFONT is also very good for creating special fonts and logos. The logo for METAFONT is a special font consisting of only seven letters, whose constuction is discussed in detail in *The METAFONTbook*. In addition, there are special fonts for printing halftone pictures, music scores, and chess programs. There is even a special set of fonts for printing large proof versions of font characters to be used while designing characters with METAFONT.

Goodies

Recently, Knuth described a method for building a font that could be used to print halftone pictures, similar to the way newspapers print their photographs. An example is presented here of a small section of a digitized picture that has been printed by this method.



If you can get your data or image into the right form, pictures can be printed with TEX. Only rudimentary conversion programs exist to do this, but it is not too hard to write such a utility.

A macro package called PICTEX by Michael Wichura has added to TEX the capability of producing diagrams, graphs, and charts within a document. This package achieves an excellent result, but at a cost. TEX is optimized to produce documents, and using it to typeset diagrams is somewhat similar to creating graphs with your typewriter, i.e., a very slow process.

Another macro package, called MUTEX, is available which allows a TEX user to typeset music scores. MUTEX comes with the appropriate METAFONT files for creating the fonts containing notes, clefs, etc., and the macro package for TEX that allows them to be used. I have run off several exam-

ples with this package, but am not experienced enough to tell how useful it is.

Other interesting applications for TEX include support for languages such as Greek, French, Russian, and German, right-to-left languages such as Arabic and Hebrew, and even Japanese. There is a program lister called TGRIND which will process an ASCII program listing and create a TEX listing; one which is line-numbered, has language-specific keywords and comments in separate fonts, and produces page headers and margin notes identifying the current subroutine or procedure in the listing.

Since the initial TEX input is just an ASCII file, it is quite easy to produce such a file from another application. I have used database programs such as dBMAN to produce TEX files. The comprehensive report formatting routines in such a database allow you insert TEX formatting commands into your report automatically, so that the report can be run through TEX to produce beautifully formatted tables and database listings. I also regularly produce TEX files from FORTRAN programs by converting data to the halftone picture format described above.

TEX Support

The TEX user community is very large and is world-wide. There are user-group conventions and a user-group magazine, *The TUGBoat*. In addition, there are on-line magazines devoted entirely to TEX, two of which are TEXhax and TEXMAG. A number of user sites across the country have archives of TEX sources, programs, fonts, and other support files. The TEX community primarily consists of university and scientific personnel who require the kind of technical output that TEX does so well.

Hardware Requirements

The TEX and METAFONT programs are large and complex, and they would not run on a 520ST. TEX could probably be run on a 1040ST with one double-sided drive. For all practical purposes though, a hard drive is a necessity. A standard set of font files for a 300 dpi device runs to four or five megabytes easily, and the source files necessary for METAFONT to generate these fonts number above 100. A 10MB hard disk partition would probably hold all reasonable TEX programs and support files.

A nine-pin printer such as an Epson is probably not good enough for TEX given the slow printing times and the condition of the Epson DVI output driver. Also, there are no 24-pin printer drivers for the ST that I am aware of. The Atari SLM804 Laser Printer is an excellent printer for TEX, with excellent quality and speed. Of course, the Atari laser requires a minimum of two megabytes to run. The HP DeskJet and DeskJet Plus might be very good, low-cost alternatives since a DVI output driver does exist for them. I hope to be able to test this driver or get feedback on it sometime in the near future. Unfortunately, the current reports of an incompatability of the D Plus with the ST parallel port might mar this possi As I understand it, the incompatibility occurs during high-data rate transfers to the DeskJet Plus, exactly the case for TEX-style output.

The Atari ST TEX Distribution

As it is currently configured, the Atari ST TEX distribution consists of five double-sided disks:

- Disk 1: TEX - the TEX program, with TEX and LATEX support files.
- Disk 2: DRIVERS - the DVI Output driver programs: the monochrome screen DVI previewer and the DVI Output drivers for the Atari SLM804 Laser, HP LaserJet, HP DeskJet, and Epson-compatible printers, along with a small set of fonts for these devices.
- Disk 3: METAFONT - the METAFONT program and all of the source files necessary to produce the Computer Modern Fonts.
- Disk 4: INITEX - the IniTEX program for building TEX macro files, the BIBTEX bibliography database program for use with LATEX, and the SLITEX macro package for producing viewgraphs .
- Disk 5: PICTEX - files for building PICTEX and a manual for PICTEX in DVI form, files for the music typesetting macro set MUTEX, and several other miscellaneous TEX support files.

This distribution should be available in the Current Notes library by the time you read this. (CN 395-CN 399) The first two disks in this distribution will allow you to test TEX on your system, but the third disk is necessary for producing the complete set of TEX fonts necessary for a usable system. The fourth disk completes the standard TEX system, including all support files for TEX and LATEX. The fifth disk contains extras and specialized programs which may or may not be useful to any particular user.

Conclusions

TEX is probably not for the casual user without a need for the kind of document design at which TEX excels. TEX requires a reasonable investment in time and hardware to use effectively, but:

> *If you merely want to produce a passably good document—something acceptable and basically readable but not really beautiful—a simpler system will usually suffice. With TEX the goal is to produce the finest quality; this requires more attention to detail, but you will not find it much harder to go the extra distance, and you'll be able to take special pride in the finished product.*
>
> —DONALD E. KNUTH, *The TEXbook* (1984)

Hard Drive Backup Technologies

A Survey of Your HD Backup Options: Comparing the Toad 44, Fast Tape Backup, DVT\VCR, and Software Backup Utilities Turtle and DiamondBack

by John Barnes

Backing up a hard disk drive is a lot like flossing your teeth. It's good for you, but it is a pain to do it. Lost files can be almost as bad as lost teeth. Keeping extra copies of files is, however, essential because, "When it comes to hard drive failure, the question is not IF but WHEN." A hobbyist will be frustrated by the loss of weeks or months of work while a businessman may have to find another way to make a living.

The classic method of backing up an Atari hard drive has been to copy the files onto a stack of floppy disks. When backing up is that much trouble, there is a tendency to avoid it altogether. As the default capacity for a hard drive package moves from 20 megabytes on up to 30, 40, and even 80 megabytes, the problem gets even worse. Within the last year we have seen several new pieces of hardware for Atari users that greatly reduce the pain involved in keeping one's hard disk backed up properly.

This article surveys the new hardware choices that are available and compares them with the older methods for backing up to floppy disks. New software for handling backups to floppy disk will also be covered.

FAT City

After using Beckenmeyer Development Tools' *Hard Disk Sentry* regularly, I am willing to bet that many problems with hard drive data loss are attributable to damaged directory information. The directory information is organized by a group of data called the File Allocation Table (FAT for short). It gets messed up when a program crashes or the power fails while writing to the disk.

Many of these failures are recoverable and there are a number of products available, in addition to *Hard Disk Sentry*, to diagnose these problems. ICD is issuing a new one and I believe that Michtron's *Turbo Kit* has yet another version.

It is also essential to have a fix for the "40 Folder Problem." This arises because TOS goes bananas when a user opens more than 40 folders in a computing session. It is easy to do this when backing up a hard drive partition with only a modest number of folders. Rainbow TOS supposedly fixes this problem (there are also indications that it does not). There are a number of software fixes, including *FOLDRXXX*, the autoboot program, and the new ICD hard drive boot software.

I suspect that I messed up FAT's pretty regularly before I starting using the *FOLDRXXX* fix.

Keep it Tidy

The first step in maintaining a collection of files is to keep it tidy to begin with. Related material should be grouped into folders rather than spread willy-nilly across several disk partitions. File dates are important, too, and users who do not yet have Rainbow TOS will also need to install some sort of fix to ensure that the datestamps on files are preserved when performing copies. There is nothing more frustrating than trying to determine whether two files with different dates are, in fact, identical.

There is a PD tool called *QC* that can be used to match files, and this is a big help in avoiding unnecessary duplication.

Other tools that help a lot in managing file collections include *NeoDesk*, *Universal Item Selector*, and *MultiFile*. These give you easier access to your disk directories and other disk maintenance functions, all of which help in knowing what you have in the first place.

The Medium is the Message

The new hardware devices for performing backups range from removable hard disk cartridges to a gadget for converting a VCR into a tape drive to a streaming tape drive system. Each of these is supported by appropriate software.

Each medium is suited for a particular niche in the market.

DVT - Hard Drive to VCR

Let's begin with the cheapest hardware alternative. Users of large minicomputers are already aware that VHS videotapes are capable of storing something like two Gigabytes (2,000 megabytes) of computer files. These devices cost around $8,000 for a DEC MicroVAX. They are attractive because the user is not required to swap reels of 9-track magnetic tape, thus permitting the backup process to operate unattended at the end of each day. Based on the rates at which these machines can read data from their hard drives I would guess that it might take a number of hours to fill up a VHS cassette this way.

Seymour-Radix has introduced a gadget about the size of a matchbox that plugs into the cartridge port of an Atari ST computer that is supposed to accomplish something similar. Their *DVT VCR Hard Drive Backup System* can be gotten at retail for just under $200. While the price is certainly attractive the software for the device needs (and, according to a spokesman for Seymour-Radix, is getting) a lot more development. For that reason the comments in the following section should be taken with an eye toward their coming update. We wish them the best of luck in their continued development work.

I tried backing up a smallish partition with about 3.5 MB of data in 440 files. The backup took 7 1/2 minutes. I could reasonably have expected to spend about 30 minutes to back up 12 MB. When backing up entire hard drive partitions, the operator starts the tape running continuously and then lets the system read in bunches of files and write them out to tape. The documentation labels these bunches as "file bundles." It appears that each bundle holds about 720 Kbytes of data (something less than one double-sided floppy). I built a large file by concatenating together several copies of a medium sized file and the backup choked on it. This is not acceptable because it is easy for output files from some applications to grow into the megabyte range.

Since nothing is being written to the date while the program is reading in new files, the bundles are separated by large gaps of blank tape. These gaps play an important role when it comes time to restore files, as we shall see later.

The *DVT* hardware is obviously operating on the margin of reliability, as I discovered when recording on a VCR Tape at a slow speed. It seemed much more reliable when I recorded at a higher speed, where imperfections in the tape are less likely to obscure data. Seymour Radix's warnings about making sure that you have a good signal and good tape have to be taken seriously.

Based on my estimate of 7 1/2 minutes for 3.5 MB, I would say that a DVT tape with a two hour running time could hold about 40-50 MB. This might amount to about 60 or 70 "file bundles." My salary from *Current Notes* does not pay for the kind of research I would have needed to do to test this. The manual warns the user to be totally meticulous in choosing tape and in caring for the VCR. The user is also warned to test the backup by "verifying" the tape, a procedure that takes about the same amount of time as writing it does. All of these precautions appear to be necessary even if they are time-consuming.

When restoring files it turns out that the tape moves much faster than the program does. The operator must, therefore, wait for the program to read in a file bundle, then stop the VCR while the bundle is being processed. Restoring my 3.5 MB took about 35 minutes. A hard disk partition of 14 MB or so would have taken over two hours to restore. This would have tried the patience of the biblical Job.

Individual files can be restored by positioning the tape to the proper bundle, as verified by scanning the bundles without restoring them. People who want to play this game should use a VCR with a good footage readout so that they can have some idea of where they are on the tape. Unfortunately, the software does not provide for printing out (or, better yet, saving a file with) a log of the backup. This would allow the user to fast-forward to the approximate location and greatly facilitate restoring particular files. Seymour-Radix states that it is working on this and that it hopes to make the restoring process much more automatic in the not too distant future.

The technically inclined user might want to try recording a large file with a known bit pattern and playing it back through the TV set. The truly creative might be able to make quite a game of this.

All in all, I found the *DVT*, in its present state of development, a very tedious device to use.

Hard Drive to Hard Drive

Back when I started to look for something better than floppies for backing up my hard drive, a *Current Notes* colleague suggested using a second hard drive on the theory that software or hardware failures would be unlikely to affect both drives at the same time. This idea might be attractive to some people who are mechanically inclined and who can get drive mechanisms cheaply. It is a fairly simple matter to format the second drive so that its partitions match those of the first one.

The simplest method for creating a mirror image of a hard drive partition is to drag the disk icon into an open window on a partition (preferably on another drive) that has been zeroed out and wait for TOS to do its thing. This can easily take 45 minutes for a 14 MB partition because TOS seems to access the directory often when doing a copy of even a single file.

If you happen to have the *FAST Tape Backup* from ICD you can use their TAPE.PRG to copy files from one hard disk partition to an empty one in a very short time indeed. I tried it with a partition containing 4.6 MB and the elapsed time was around 40 seconds. That is painless backing up. ICD achieves this blinding speed by totally bypassing TOS's file management. This approach is especially good on those days when, for whatever reason you decide, you want to reformat your hard drive.

Backup Software

Intelligent software that looks for only those files that have been altered since they were last backed up makes "incremental backups" a relatively quick operation. ***IBBACKUP*** from IB Computers was the first product that I am aware of to make a stab at this. It was able to set the "archive bit" that is part of each disk file's attributes as it backed up the files. Unfortunately, TOS versions earlier than "Rainbow" did not always clear the archive bit when a file was rewritten by an application, thus causing the incremental backup process to miss potentially important files.

GOOD Backup, from Tid Bit Software Engineering Company, takes account of this with a pretty sophisticated approach. *GOOD* maintains a database of the files that have been backed up to a hard drive partition or to a collection of floppies. The database contains the creation date, the size, and a computed checksum for each file.

If either the creation date or the file size of a file on an active drive partition fail to match those in the backup file collection (called a save set), the file is copied into the saveset. Files whose names do not appear in the saveset database are backed up while those that have been deleted from the active drive are removed from the saveset (these backup and deletion options are actually controllable by the user). The result is a saveset whose contents match those of the active drive very closely. If the user wants to verify this he can request that all files on the active drive have their checksums recomputed and tested against those in the saveset database. This adds a modest amount of time to the incremental backup process, but the peace of mind is worth it.

Pha$ar and *dBMAN* are two programs that fail to change either the creation date or the archive bit when they rewrite some of their files. The files produced by these programs are direct access files and their attributes get changed only when they grow bigger. *GOOD* is very smart about spotting changes in them. The user can also force a date change by "TOUCHING" the files with *Universal Item Selector* or *MultiFile* (the latter allows groups of files to be TOUCHed while the former TOUCHes them one at a time).

The likelihood that non-identical files can pass all of these tests is small and the user can have reasonable confidence that the saveset and its active file collection are truly identical. Since *GOOD* ignores the archive bit, it is possible to maintain duplicate savesets using quick incremental backups. It is a good idea to keep the duplicate saveset in a separate location from the working saveset if the files are truly important to you.

Incremental backups by this method are so quick that there really is no excuse for failing to do them.

A final feature of *GOOD* is its ability to interrupt a backup and pick up the thread in another session. This can be a real boon if something comes up to interrupt the process. This is possible because *GOOD* maintains a database of backup information as it goes through the process. This database file can also be reconstructed from the backup disks themselves

Removable Hard Disk Cartridges

Everything described in the previous section applies to the hard drives with removable cartridges introduced by Toad and others. The only difference is that one hard drive mechanism can service multiple platters. This provides a considerable degree of flexibility because the user can utilize additional cartridges for projects unrelated to backing up the primary drive. The cartridges can also be removed to another site for more secure storage. Disk librarians, businessmen, and tireless experimenters should find this a very attractive option.

The price starts getting pretty steep, however. The drive mechanism is more expensive ($700 vs about $350) and the cartridges, at $100+ per, are not cheap either. It all depends on how important it is to have a security blanket. There has been some rumbling about the reliability of the drive mechanism, but SyQuest does provide a two year warranty. If the cartridges are kept under reasonable conditions and if a duplicate save set is kept for very important files, this scheme should afford reasonable security.

Users who have multiple systems may want to package their removable hard drive kits in a separate case to make them more portable, although the most economical alternative is to build them into a spare slot in your regular hard drive case if you have room and a suitable SCSI host adapter.

The cartridges certainly offer a lot more convenience than tape or floppies because it is much faster and easier to find files on them.

The *GOOD Backup* utility appears to be the tool of choice for this medium because of its sophistication and its ability to do rapid, thorough, incremental backups. I received a review version of the software and I found a lot of problems. The developer has been extremely responsive and has made excellent progress in clearing up his problems. The current version that I have, while it is not perfect, is pretty reliable. I am certainly getting satisfactory results using it.

GEM addicts may hate it, however, because of its use of IBM-like menus. The user interface could, indeed, use some improvement, most notably with provision for running the program in a batch mode to make unattended backups. The program should make use of the system item selector when building lists of files to be excluded or included. I am not a GEM addict and I find *GOOD* is extremely handy.

Streaming Tape

The *FAST Tape Backup* is the Cadillac of the devices reviewed in this survey. It is indeed FAST. At 30 seconds to back up 3.5 MB and 20 minutes to back up 70 MB, it blazes right along. It is supported by sensibly designed software, whose use is well documented. All in all, backing up your files at the end of a day is painless with this device.

Rewinding the tape and searching for files in order to restore them is something that can easily be endured given the cost of lost files.

Restoring files to a partition different from the one they originated on is a little tricky, but doable. I wish the restore options were a little more flexible with regard to wildcarding of file names. People who already own this device should be aware that the software revision level is up to 1.3. At around $800 retail, this device is definitely for the serious user. The unit requires special tapes that cost around $30 apiece. Each tape holds the equivalent of 250 floppy disks

The box is very well designed. Setting the SCSI device ID by means of a thumbwheel switch is a very thoughtful touch. The unit is quite rugged and it is light enough to be easily portable. It would be nice to have some sort of a special carrying case so that it could be easily moved around.

The *FAST Tape Backup* is just what the doctor ordered for those days when you want to reformat or repartition your hard drive, provided that you make sure that you are using the file mode rather than the image mode for backing up. The image mode copies everything from a drive partition and you can only restore to a partition of the same size as the original.

> The *FAST Tape Backup* is just what the doctor ordered...

Floppy disks

The high cost of backup hardware means that many people will continue to use floppies for this purpose. I also use them for archiving obsolete material and for preserving distributed software.

The public domain program ***Turtle***, which is now up to version 3, is a good inexpensive tool for this, and an informal survey of my acquaintances revealed that it is widely used. New software is available for restoring savesets created by *Turtle* and another piece of software, named *Terrapin*, is available for backing up files that are too large to fit on a single disk. Part of *Turtle's* attraction lies in its use of a RAM disk to build an image of the destination floppy before writing everything out in one burst. *Turtle* does not support backup from one hard drive partition into another, probably on the theory that the normal desktop methods are adequate for this.

The saveset disks that *Turtle* creates are directly readable by TOS--a strong plus.

Such commercial products as *Flashback* (Triangle Software Innovations by way of Eidersoft?) and *HD Tools* (Beckenmeyer) create closed savesets. This means that the only way to restore files is the way the publisher intended it to be done. There are no workarounds if the user should discover a bug in the software. I cannot really forgive the *Flashback* people for the fact that the disks their product creates look like empties when the directory is examined. It is too easy to make a mistake and inadvertently use one of these for a scratch disk, thereby destroying the saveset completely.

Incremental backups can be done using the date stamp (backing up files created or modified after a certain date) or by changes in file size. Incremental backup is a highly desirable feature because it is most likely that only a few files will have been changed since the last backup. The work involved in backing up a small number of files is much less. *Turtle* and *DiamondBack* use the archive bit to determine whether a file should be backed up. These methods would be fine if date-stamping and the archive bit were reliable, but, in versions of TOS before "Rainbow," they are not.

The *GOOD* backup utility can be told to verify a checksum for each file. The odds that the checksum will change if a file has been altered without changing its date or length are pretty good--a pretty sophisticated method. The saveset database file created by *GOOD* allows the program to delete obsolete material from the floppy disk collection and to reuse the space thereby created as it works its way along.

With minor exceptions, it is easy to convert savesets made by *Turtle* and *DiamondBack* to *GOOD* savesets if one should wish to do so.

Backup software that sets the archive bit may also affect other backup operations, but this is a small inconvenience given the lower cost of *Turtle*, which is perfectly adequate for the ordinary user.

I have already mentioned *Diamond Back*. This is a new product distributed by Data Innovations Inc. It offers encryption and compression as optional components of the backup process.

I frankly see no need to bother with encrypting a backup saveset. If you don't want anyone to steal your data, you should keep it away from them by locking it up in a safe place. You can always get someone to open a safe but you may never be able to reconstitute a forgotten encryption key.

The disks that *Diamond Back* creates when compressing files for a saveset give garbled directory listings when you try to look at them. I don't think this is very functional. The time involved in compression is also considerable. If you want to compress files, do so with one of the regular utilities such as *ARC* or the newer *ZOO*. The latter has a number of advantages over *ARC*, but I need to do more research to see how well the system works. The files created by a standard compression routine (*ARC* also allows encryption) are at least identifiable entities that can be operated on out in the open.

Diamond Back does create a listing file that contains the names of the files that have been backed up and the disk they are on if the user asks for it. This really should be the default mode because the listing is quite useful when searching for files.

Diamond Back's incremental backup function is a misnomer because it really only backs up a subset of all files consisting of those whose creation date is after one specified by the user, ignoring older files that might have been moved onto the hard disk. The partial restore function is also not very functional because the user must have access to a list of file names in order to type them in (wild cards are, however, supported).

Both *Diamond Back* and *GOOD* will split large files, pasting them back together when it is time to restore them. *GOOD* provides a wider range of options for carrying out the restore function and it only attempts to restore files missing from the active disk or which do not match those in the saveset.

Cataloguing the Collection

One of the most important tools in any library is the card catalog. So it is with disk libraries. There are several public domain and commercial tools for doing this. Michtron's *SuperDirectory* would be a fine one if it used disk volume ID's, if it worked on my Mega ST, if it were more polite about its memory usage, and if it provided me with an ASCII output file that I could manipulate by other means. The program is quick and its sorting and subsetting operations are very fast. *Director*, which I got from a START Magazine disk (Volume 3, No. 6, I think) is an excellent program for producing a list of all the files on multiple floppies, but it does not provide any sorting or subsetting functions. I used the ASCII file produced by *Director* as input to a set of *dBMAN* database procedures and this produces a quite satisfactory. if somewhat slow, scheme for maintaining a catalog. The system will be released to the public when I get around to finishing the documentation. It is not recommended for people who are afraid of command line input.

The *CAT3* program on ST Informer's PD Disk 1188 is similar to *Director*, but it does provide a sorted listing that would have to be reorganized for input to my *dBMAN* package. *GFA Basic* source code is provided with this one.

The floppy disk database program from Saraware on *Current Notes* library disk number 276 is essentially useless because the data must be entered by hand, an extremely tedious process.

Restoring Files

All of the labor spent backing up goes for nought if it is not easy to restore a file that has gotten trashed or lost. This should be as simple as locating the file on the backup medium and reloading it and any cousins that may have gone astray.

I have already commented on the laborious steps needed to do this with the *DVT* device. The *FAST Tape Backup* system provides pretty effective tools for this, although it would be nice to see support for wildcarding and directory backup. *GOOD*'s saveset database allows it to restore things that actually need restoring with a minimum of fuss.

The easiest method for restoring with *Diamond Back* (in the uncompressed file mode) and *Turtle* is to simply use the desktop or the *Universal Item Selector* to copy files off the backup disks into the proper places. There is a PD utility named *Unturtle* that will automatically generate the proper directory structures for restoring from *Turtle* savesets, but the need for this is somewhat reduced since Rainbow TOS is more tolerant of path name collisions on copy operations.

Summary

For my purposes, I found the *GOOD* backup utility to be the most useful tool available for performing backups to other hard drive partitions, particularly ones with removable media. The champ in terms of speed and convenience was ICD's *FAST Tape Backup* system. Choose the system that suits you best in terms of your time and your money, but be sure to work at keeping your hard drive backed up.

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DESKJET REVISITED

An in-depth look at the newer, faster Hewlett Packard inkjet printer -- the DeskJet Plus and some tips on getting the most out of your DeskJet.

by Jim Wallace

When the original Hewlett Packard DeskJet came out about two years ago, it offered a real "power without the price" alternative to laser printers costing over $2,000. Now, for the first time in history, "the rest of us" could get a printer that could produce typeset quality documents for less than $1,000! This new "inkjet" printer, combined with the right printer drivers, was equal in print quality to laser printers--but that wasn't all! It was whisper quiet, easy and inexpensive to operate, and manufactured by a company famous for its first-class support. Finally, those of us wanting to get on the real desktop publishing bandwagon, but who couldn't afford laser printers or Postscript solutions, were offered something that was within our reach.

The Quality Issue

In a previous review of the original DeskJet that appeared here in *Current Notes* some time ago, I said that the print quality of the DeskJet couldn't be beat by a laser printer. I've now been using a DeskJet on an almost daily basis since it was introduced in early 1988, and still find it to be absolutely top notch in every respect. This is especially true since the availability in May, 1989 of the newer and faster DeskJet Plus. Not only has the hardware improved, but the software has improved as well. In fact, the combination of the DeskJet Plus with new, more efficient and faster printer drivers almost triples the speed of the slower, original DeskJet! The speed is so fast that I have no reason to "upgrade" to an Atari laser, especially since I believe that the DeskJet output is actually better than that produced on most laser printers.

While the output from 300 dpi devices like the DeskJet and most laser printers is not as good as that produced from very expensive digital typesetters from companies like Linotype and Compugraphic, there is still a huge demand for work produced at 300 dpi.

Whichever DeskJet you choose, the price can't be beat! While the list price for the DeskJet Plus is the same as the original DeskJet ($995), the original DeskJet can now be purchased for a list price of $695. While these list prices are the official selling prices, the "street price" of the original DeskJet is now about $495!

Problems?

The original DeskJet was nearly perfect, but there were a few problems worth noting. Since I had purchased one of the very early "beta" units, I experienced problems when printing solids. Small white lines were sometimes visible across black solid areas, and a faulty priming mechanism was later blamed for the problem. Hewlett Packard, however, quickly replaced my unit with another one that performed perfectly.

Also, while the original DeskJet was criticized for being somewhat slow, the beautiful printouts were worth the wait! Additionally, one must realize that "speed" in this case is a relative term. While the original DeskJet was slower than an Atari laser printer (which has a DMA port), the DeskJet was actually faster than the Epson laser printer, and even the Mac/Laserwriter which used the relatively slow Postscript page description language. In any event, my Atari 1040ST and original DeskJet worked great together when combined with the Migragh DeskJet GDOS driver, which was the first graphics driver available for the DeskJet--thanks Migraph!

It should also be noted that some users have experienced problems when using the parallel port. This minor problem has to do with an inconvenience in being able to turn the printer on or off under certain conditions. While some have accused Hewlett Packard of design problems in the printer, others accuse Atari of a non-standard parallel port on its computers. This rare problem, however, seems to be caused by a slight mismatch of certain electronic parts relating to occasional bad tolerances of certain components. But, personally, although I've now used three DeskJets connected to two different 1040's as well as my new Mega, I have NEVER had ANY problems of this nature. Additional problems encountered when using certain hardware buffers have also been reported, but I'll talk a little later about my experiences with buffers.

Since this article is a follow-up of my original review of the Hewlett Packard DeskJet that appeared in

the June 1988 issue of *Current Notes*, I refer you to that first article for additional technical information about how the DeskJet works, how it compares to a laser printer, basic add-ons available, and other facts about this amazing inkjet printer. I will now discuss the new, faster DeskJet Plus which is now available. If you wish to also read my original 5,000 word review, you can either order a back issue of *Current Notes* (if available) for $2.00, or you can download the ASCII file from GEnie (filename: DESKJET.ARC).

It Pays for Itself!

Before I start talking about how great the new DeskJet Plus is, I'd first like to tell you what I use my DeskJet for. Unlike many average users, I had a particular purpose in mind for my DeskJet. Since I've been in commercial printing and graphic arts all of my life, I was especially interested in using the DeskJet as a means to produce "camera ready" printouts for offset printing, which includes both typesetting and artwork. While I had been using a Panasonic 1092 impact ribbon printer for some low-end work, I really needed 300 dpi. And while the DeskJet was still a little too expensive for my limited budget, it was the only printer available that could give me the required resolution for less than $1,000 (I actually purchased my first DeskJet for $795). And purchasing the DeskJet has turned out to be one of the best decisions that I've ever made! Within only a short time after getting the DeskJet, I started promoting my home typesetting business and was surprised that my DeskJet actually paid for itself within just a few weeks! In fact, within a few short months I was making over $500 a week with my Atari 1040ST and original DeskJet, and thus was able to purchase a Supra hard drive, Mega, and lots of other goodies, not to mention the fact that I was(and still am) making a living with my system. In fact, I can't tell you how great it is to own a computer that actually pays-for-itself! But that's really another story, and perhaps I'll write another article on how to make money with your computer in desktop publishing. But for now, let's see why the new DeskJet Plus is even better than the original!

The New DeskJet Plus...

While the DeskJet Plus looks almost identical to the original DeskJet (a slightly different keypad and a "Plus" label are about the only external differences) its new features are mostly in the form of improved internal hardware. Most important is the much faster Z-180 CPU which has replaced the original, and slower, Z-80 processor. As a result of this new horsepower, the Plus prints about three times faster than the original, depending of course, on the software drivers used by your ST programs.

Note that since the Plus has a faster CPU, it processes all data faster than the original. Thus, it isn't necessary for printer drivers to be re-written for the Plus. New drivers are available, however, that do print much faster, but these also print faster on the original DeskJet. Programs like *WordPerfect* however, need new drivers to access the different internal fonts used in both the DeskJet and DeskJet Plus.

Read my lips, this printer is terrific!

The Plus has additional internal fonts for italic and landscape modes that weren't available in the original printer. In addition, the Plus can use newer Times and Helvetica font cartridges that now produce better looking text than the ones used by the original DeskJet. These older font cartridges can be used by the Plus, but with no improvement over the original DeskJet. The newer Plus cartridges provide sharper, blacker text with less space between the letters.

Note that these default font cartridges are only used by word processors, databases and other programs that use "built-in printer fonts." Desktop publishing style programs always use "graphic mode," and thus their fonts and graphics are produced as a bit map--a totally different process.

Another big improvement in the DeskJet Plus is a newly designed prime function which completely cured all the previous problems on earlier models. Now, I only prime ink cartridges when first installed. After that, the printer has all the ink it needs to print the most beautiful solids you've ever seen. In fact, I've even printed entire sheets in reverse (white letters on a solid black background) just to "startle the natives." Read my lips, this printer is terrific!

Ink Cartridges

The Plus uses the same black ink cartridges with water soluble ink as the original DeskJet. Although you may have seen color cartridges which look similar, available for the HP PaintJet, these will not work in the DeskJet. Among other things, the ink used is completely different.

Additionally, some people are now attempting to refill spent cartridges with a hypodermic syringe and fountain pen ink. Personally, I find this to be of little value when one considers that (1) nothing looks better than the original HP black ink, and (2) I normally get back about $1,500 (you heard me right) per cartridge, since I use the DeskJet for commercial typesetting. And since new, good cartridges cost only about $15 (street price), why should I bother?

While the water soluble ink poses no problem for typesetting (I always cover my camera-ready pages with a thin sheet of tracing paper anyway), water soluble ink could cause problems if used on mailing labels or on envelopes. And to solve this problem I have a solution. After printing on envelopes or labels (use "laser labels" since they are thinner, and will wrap

around the platen), simply spray the surface with a special "fixative" or clear spray used in graphic arts. This plastic coating will protect not only inkjet pages, but laser pages as well, from moisture, dirt, smudges, etc. You can get a can of this spray at your local art or drafting supply store for about $5.00. I use "Sprayway #204 matte fixative" and "Chartpak Clear Spray."

Note that while printing mailing labels on a DeskJet is possible, it is not recommended for heavy use. This is because of the danger that a label could come off the backing paper and stick to the internal platen roller, making it difficult to remove. A better method is to simply use a photocopy machine to print the actual labels, after the original copy has been produced on the DeskJet.

The Environment

Since the performance of any DeskJet is linked directly to the hardware and software that helps drive it, let's discuss how my own system is currently setup and how it relates to the DeskJet and my own main interest--desktop publishing.

I now have a Mega2 which is my fifth Atari ST computer since its debut back in 1985. I first used NeoChrome as my main graphics program. In fact, back in those early days, many of us actually used *NeoChrome* as our first "desktop publishing program," but as I said, nothing else was available, and it at least had a few different "typefaces" that could be used. But so much for history. Now it's 1989 and it's a totally different ball game. We now have programs like *Calamus, PageStream, Publisher ST, Fleet Street Publisher,* and others which output at 300 dpi and more! But to harness this power one needs not only a great printer, but other goodies as well if the process is to be relatively fast and efficient.

Computers and Memory

While either DeskJet works fine on even a standard 520ST for printing basic text files and such, you really need at least one megabyte for real desktop publishing applications and CAD programs. Remember that since the DeskJet has essentially no memory of its own (comes with only 16K--great for text files but not for 300 dpi graphics), it needs the memory in your computer to function. More memory means more fonts, bigger scanned pictures, longer text files for multi-page documents, faster program execution, and faster printouts. All currently available Atari ST desktop publishing programs will work with one meg of RAM on the DeskJet. But programs like *DeskTop Publisher* and especially *Calamus* (which needs more RAM for scaling fonts) will find it harder going for anything beyond a few simple pages. *PageStream*, on the other hand, takes up less memory than most other Atari ST desktop publishing programs and, so, gives you more available memory to use for files, fonts, etc. *PageStream* does especially well on the DeskJet when using UltraScript (Postscript) with the just released DeskJet driver which is the fastest I've seen! *Easy Draw* also works well in only 1 Mb.

It is interesting to note that a 1040ST/DeskJet combo leaves about as much working memory as an Atari Mega2/Atari laser printer combination. In fact, it's very difficult to do much of anything in desktop publishing on an Atari laser without a minimum of four whopping megabytes of RAM! The best power/performance match is the DeskJet and a Mega 2 (or an upgraded 1040). Since I purchased the Mega 2, I've yet to see a dreaded "out of memory message" in the middle of a desktop publishing program--even with a huge 650K *Calamus* file using lots of Compugraphic fonts and lots of scanned images. The Mega 2 is the perfect companion for the DeskJet!

Hard Drives

As you all must surely know by now, computers run much better and faster with a hard drive. And since a hard drive can help you load fonts, files, and other such things much faster, this means your DeskJet will also seem to speed up a bit. This is especially true of Timeworks *Desktop Publisher* which makes disk accesses almost constantly (it's a direct port of the IBM version). Since printer fonts must always be loaded right before printing (no matter what program) a hard drive will certainly increase your overall productivity with not only the DeskJet, but other printers as well.

Buffers

While in my original review of the DeskJet I said that using the optional 128K HP ram cartridge would speed up printing, I was partially in error. Actually, the documentation was in error since it did say that the RAM cartridge could be used to extend the printer's RAM. And while this general statement was true, it only applies when downloading fonts to the printer. These "soft fonts" replace the internal default fonts of the printer, and are used mostly by word processing programs which use the text mode, rather than the graphic mode used by typesetting programs like *Calamus* or *Publisher ST*. A third-party external buffer, however, can be used as a "RAM cache" to speed up printing of bit maps.

As an example, I upgraded my old MicroFazer, in-line, parallel printer buffer to 128K and connected it between my computer and the DeskJet. This has speeded up the time it takes to "return to the computer" by about 15%. Remember that to image a typical "full page" at 300 dpi requires almost one full meg of memory. And since my buffer's 128K memory is about 15% of one meg, it therefore takes over from the computer the job of handling the bit mapped file about 15% faster than without the buffer.

Note that I've tried other, less expensive hardware buffers that did not work properly. In addition, my MicroFazer (made by Quadram Corp.) also works when printing

screen dumps. Earlier in this article I talked about some people having problems when connected to the parallel port. And part of this problem could just be that you may be using an "inferior" buffer that can't cut the mustard. As I've said, the MicroFazer is the only external buffer I've tried that actually does what you expect it to do without any hassles.

DeskJet Software...

At first, there was only the DeskJet and one lonely GDOS printer driver from Migraph. But since the DeskJet is compatible with the HP LaserJet, you could also use drivers made for the HP laser printer. In addition, one could also use the HP Epson emulation cartridge to further extend the usefulness of the DeskJet. But now there are drivers for just about every major Atari ST program, and without question, these new "smart" drivers can really deliver. They are much faster than those first drivers that hit the market and, especially on the DeskJet Plus, they provide a very remarkable speed improvement over older versions.

Most notable are the drivers for *Calamus, PageStream* and *UltraScript*. Until recently, the fastest driver was for GDOS output, but now *Calamus* prints almost as fast as GDOS, while the Ultrascript DeskJet driver prints a full page in about one minute (not counting the time to image the page in memory). In fact, the new DeskJet Plus can reportedly print faster than it can receive data from the parallel port!

Tips and Tricks

Here are some additional tips and tricks you can try for improving your DeskJet:

- Using G+Plus from Codehead Software when using GDOS output speeds up font loading, etc.

- Use the TurboJet printer driver from Neocept. Although this enhanced GDOS DeskJet driver speeds up an original DeskJet about 30%, it appears to have no effect with the DeskJet Plus.

- Since software companies are constantly improving their printer drivers, make sure that you have the *latest* driver for each of your programs!

- Probably the quickest way to print column "galley type" for small newspapers, etc. is with *WordPerfect*. But make sure that you have the latest version of the program and call them about how to install the DeskJet driver properly.

- If you suddenly start having problems with DeskJet output, it might be caused by a corrupt file on your hard drive. Re-copy your GDOS printer driver to your hard drive at regular intervals. It took me many hours to figure this problem out myself!

- You can also use your DeskJet with the Magic Sac Macintosh emulator, but you will need the "HP LaserJet emulation driver" available from SoftStyle. This driver emulates only the Apple ImageWriter (impact ribbon printer) which is similar to Epson dot matrix output. It works fine, and can be easily installed with the "Chooser," but don't expect 300 dpi output. Apple has recently announced that it is soon shipping an HP DeskJet under Apple's own label which will indeed provide 300 dpi output using special fonts. Note that the Apple Macintosh has always relied on Postscript for high-resolution output. The Atari ST has actually had an advantage in that there have been various ways to produce 300 dpi output without Postscript. These include GDOS and various proprietary graphic output methods such as those used by programs like *Calamus* and *PageStream*.

Public Domain Utilities

Since the availability of the original DeskJet, there have appeared on GEnie and other services, various public domain programs to help the DeskJet perform even better. These include EPSJET.ARC, an Epson printer emulator; JETSET16.ARC, a handy desk accessory which allows you to set various features on the DeskJet from the desktop; MARGINHP.ARC, a little program I made to set the left margin of the DeskJet to one inch (real handy when printing files from the desktop); various printer drivers for *WordWriter ST, First Word Plus*, etc.; and many more "free" public domain programs. I will send a complete set of these programs plus various informative text files about the DeskJet to the editor of *Current Notes* for possible inclusion in the *Current Notes* disk library.

Accessories

Although the DeskJet printer itself is really all that you need for most any job, Hewlett Packard now offers over 30 accessories for both the DeskJet and DeskJet Plus. These include over 20 font cartridges, a dust cover, a handy plastic cabinet for keeping your supplies, various soft fonts for IBM programs, and more. You can obtain an accessory catalog and other information by calling HP Direct at 800-538-8787.

Finally, I'd like to thank David Neff, "the father of the DeskJet," and Hewlett Packard for giving new meaning to the phrase "power without the price." Happy Printing!

TIME TO RENEW?

If your mailing label has ***8912,*** *your subscription ends in the 12th month of 1989, i.e. now, this issue! Be sure to renew now so you don't miss any issues of Current Notes.*

America's STealth Computer

by David G. Grace
U.S. Special Agent

It was the 5th of July, but the fireworks weren't necessarily over. I was lying on my belly in a hot, western Pennsylvania apartment, looking for trip lines and booby traps. It was hard to keep my mind on the job at hand. Barely had I become an "award winning, syndicated columnist" for *Current Notes* when I was treated to my first-ever negative reaction. It came in the form of a letter to the Editor, complaining about my last article and its "sophomoric, insensitive and graceless" comparisons of AIDS and computer viruses.

My self pity was interrupted by the discovery of an explosive device in the apartment's bedroom. As the rest of the building was evacuated by local police, the bomb disposal man with whom I was working gingerly tied a cord to the device, in preparation for the optional "tip and tumble" test for anti-personnel triggering devices. It gave me a moment to think about how bad my obituary could read: Long-time Fed, short-time hamburger, locally known actor, regionally known writer, nationally known gay basher! We backed into the hall for the tug. I assumed the fetal position to protect the more important organs, in case it went off and I lived. But it didn't and I did.

At first I had thought about firing off a letter of my own, but it was a computer mag and I didn't want to start a never ending stream of pro and con letters on gay rights. At the same time, I thought that no response might appear to be accepting the accusation as totally warranted. It was Earl Hill, the Sage from SAGE (the Atari users group in Erie, PA) who finally started me back on the road to recovery. Earl, a nationally known author in his own right, supplies me with offbeat magazine articles and tips about computers in general, and Atari in particular, that help in providing a truthful basis for the satire that I like to write.

With apologies to Earl, the conversation wasn't recorded and was held several months ago at a computer show in Erie, but it went *something* like this: "Liked your article on viruses," he said.

"You mean the gay bashing one?" I replied.

"Well, the one about computer viruses and AIDS, anyway."

"Some guy in South Carolina thinks it was sophomoric, insensitive and graceless."

"Graceless, huh, I get it, a play on words with your name," Earl replied, "But that's what humor is ... a twist on reality to establish a chuckle. Sometimes it appears to be at someone else's expense, like *graceless*, but not necessarily with malice. Slipping on a banana peel is probably not funny to someone who actually does it."

I was encouraged again! "Now that you mention it, South Carolina's always been a real model for the protection of minority rights!"

"That's the spirit! Here's some more articles about computers in Russia, and another one on solar powered laptops. You should be able to do something with one or the other. They both have potential for humor."

"I better not poke fun at solar powered computers." I said, "One mention of the Green House Effect in jest and Green Peace may show up at my door."

"Right," Earl replied, "Carrying signs accusing you of being sophomoric, insensitive and graceless."

But Earl had said it all. It was an article about **viruses**, the leading computer story of the year. Comparison with the leading medical virus story of the year, complete with the dozens of cliches which usually accompanied them both, was inevitable. Sure, it was sophomoric. What April Fool article isn't? And insensitivity can go both ways. What about all those OTHER things I poked fun at in the same article? What about the death penalty, Ted Bundy, the Surgeon General, the Secret Service, fundamentalist religions, IBM and Apple owners, Commodores, and my own brother (not to mention myself)? No mention of THEM in the letter to the Editor. And what about any positive reactions? Didn't ANYONE like it? My brother didn't, but he owns a Commodore, so what's he know? That's when a new subject dropped in out of left field.

Now I don't usually mix with the Central Intelligence Agency crowd, but on occasion, one will stop in to request a computer check on intelligence available on an individual. It's probably part of a pre-employment background investigation, but we know it's useless to ask. I recently got hold of an audio tape for a brief time. I can't go into exactly how, but I have no doubt of its authenticity. In order to keep it clear, and still protect its source, those involved in its recording and those who are still at risk, I include notes in brackets to describe the scene. Compromising references from the tape are edited, but the important passages remain. The conversation occurred recently in a coffee shop behind the Iron Curtain. Those speaking are operatives of the CIA and the Soviet equivalent, the KGB.

The CIA man is slim, short and in need of a shave. He pauses in the doorway to let his eyes get used

to the dark interior, after his walk in the sun. He spots the Russian across the smoke filled room and removes a cigarette pack from his shirt pocket. The American brand name on the pack identifies him like an identity card. The rest of the tobacco to be found in the cafe would be Turkish. The KGB man is seated at a table. He is tall and chubby and wearing too much clothing for the summer. There is a red pin, with two words in white letters, in his lapel. The CIA man is unable to read the Cyrillic characters. The Russian is stirring thick coffee in a thin cup. It sloshes over the side and into the saucer, because he is intently watching the other man approach. The CIA man, with a faint southern accent and holding up a cigarette, speaks first.

C: Have you got a match?

K: I have a lighter.

C: Better still.

K: Until they go wrong.

C: [Dropping the unlit butt on the floor] The recognition signal you supplied is strangely familiar, yet I'm sure I've never used it before.

K: Please sit down. [His voice was guttural, with a thick eastern European accent] You can call me Viktor.

C: I'm Joe.

K: I am from Georgia.

C: Yeah? Me too. Well, originally. I live in Virginia now, to be close to the office.

K: [Rolling his eyes] You know why we are meeting now.

C: Sure. We both have problems with computers. It looks to my people like maybe you've been smuggling some pretty sophisticated computer chips out of the country, disguised inside video game machines.

K: That is a lie. [Voice rising] And besides, you've been sending our people supplies of computer products in an effort to undermine our authority and tempt our heroic people with decadent western opulence!

C: [Rising] Commie!

K: [Also rising] Imperialist!

C: [Sensing he was losing control, the CIA man slowly dropped back into the seat, as did the Russian] Before we go off half cocked, lets get some things straight. I don't care if your people never get a view of western culture, but we're talking about thievery here. For months we've been monitoring the flow of Atari game machines into your country, Poland, Yugoslavia and other Warsaw pact nations. Now it's come to our attention that sophisticated computer chips were cleverly hidden inside. Tests have indicated that the machines won't even work right if one is removed. I guess you don't much care if they do, once you've gotten your mits on the chips!

K: You are joking, no? Or is this an attempt at Yankee provocation? Everyone east of the Atlantic knows that those machines won't work without the chips, because they belong there. We are using the Atari ST machines in government, business and education. Atari user groups are springing up in Moscow, Leningrad, Warsaw ... we know, we've been monitoring their letters to a similar group in Pittsburgh.

C: Reading their mail? That's unAmerican!

K: Not in Moscow.

C: And how can I believe that you're using cheap Atari machines, rather than IBMs and Apples? No one would consider Atari for business, government or schools back home.

K: Da. That's why you have such a spending deficit back home.

C: No one ever got fired for buying IBM!

K: We do have a former Commissar who will be spending 10 to 20 years in Siberia for buying one. Currently he's heading up a new user group, GACE (the Gulag Atari Computer Enthusiasts). They are able to put out a decent bimonthly newsletter, considering the meager dues. Now he understands why Atari's advertising slogan is "Domination, without the rubles."

C: They advertise in Russia?

K: When Radio Free Europe isn't jamming the signal, we send transmissions to the NATO countries, in the spirit of Glasnost, advising them of the latest Atari hardware.

C: Advertisements?

K: How did you think Atari became the largest selling computer in Europe? No thanks to the American media ads! We've also been doing some software reviews and Infocom clues, like how to get the babel fish in *Hitchhikers Guide*.

C: What would YOU know about advertising?

K: Let's put it this way, how many times have you seen a Pepsi ad on an AMERICAN space craft?

C: Yeah, I heard about that. Of course, it's not that often one flies by me just as I'm getting thirsty. But, I guess you've got me there. That reminds me, I heard a good computer joke. How many computer programmers does it take to change a light bulb?

K: I'm afraid to ask.

C: The programmers can't do it. It's a hardware problem!

K: [Rubbing his temples] We have compared your country's Atari advertising campaign to your Stealth bomber.

C: How do you figure that?

K: The computers are very fast and powerful, but they can't be seen. They can't be detected with standard electronic receiving devices, like radios or televisions. And they are entering our country despite our attempts to control their arrival.

C: Why is that a problem?

K: My people are demanding more and more of the machines. Even the peasants are recognizing their value and ease of use. They say it is so user friendly that even a Polit Bureau Chief can run one. I'm even a proud owner myself. That

reminds me. If you can get me the *F-16 Falcon* program, I'll trade you the *Mig-25 Foxbat* disk ... with DOCs!

C: You're a sick puppy, Viktor. There's no way I'll trade my country's secrets for ANYTHING you can name.

K: Nyet, no. It's a legitimate flight simulation. We can get the Apple and IBM versions, but they're just too slow and not as realistic. That brings me to another problem. The demand is so great for western software and the Atari STealth Computer, that there may soon be a government sponsored backlash against the evils of western decadence.

C: That's a problem for you?

K: I'm worried how I'll keep getting the latest Infocom adventure. See this pin? [He points to the round, red, lapel pin with two words in white.] Sometimes it's the only thing that gets me through the day.

C: [Guessing that the pin says something like "Workers Unite."] Has the Party taken any action as yet?

K: Not specifically against Atari, but there has been some action concerning western decadence in general. Premier Gorbachev's wife is heading up the current effort to encourage resistance to western influences and temptations, in her "Just say, NYET!" campaign.

C: Now that is what I call a sophomoric, insensitive and graceless attempt to poke fun at our First Lady!

K: FORMER First Lady, but what does it matter? We both appear to have been somewhat misinformed about the danger to our countries. I suggest we review our intelligence sources and meet at a later date, if necessary.

C: Okay by me. I'm on per diem. [Rising] Have a good one!

K: [Watching the American leave] Dasvidania!

The tape recording appears to end. However, subsequent processing through high and low pass filters, and removing some room noise with a frequency notch filter, revealed an additional exchange in Russian which was later translated. The first voice was identified as the KGB man, talking to a member of his cover team. The transcript of the literal translation reads as follows:

"Well, Comrade, it went well. His computer knowledge was limited, however. I'm not sure he even understood my lapel pin. I got it from Infocom, but I've been wearing it since the day I invested in that Atari stock."

"Yes, Viktor, I have seen it on you often. But, I too, do not understand the significance. Why do you wear it? How does it help you? What does it mean ... DON'T PANIC!?"

Announcing the New XL/XE Library!

In response to many concerns voiced by our customers, we have decided to revamp our XL/XE selection of library disks. After considering many of the options available to us, we have decided to start a new XL/Xe library containing all new titles and a few old ones all put together in a new, consistent format. This format means that the disks will be easier to use and will contain more quality software.

Due to the amount of work involved in releasing fifty new disk titles, the new disks will be appearing at a rate of hopefully five or six a month. The old library will still be available and a list may be obtained from the Mail Order Librarian.

To prevent confusion between the old and the new libraries please use the new three letter and number code to identify orders from the new library.

Attention all programmers! NOVATARI is always seeking contributions to its library. If you've written something you think others would enjoy using or you have something we don't; by all means send it in. Please remember that all submissions should be public domain or shareware. Disks accepted into the library will be exchanged for library disks on a one for one basis. Please indicate your choices when you send in your submissions. Please send your submissions to:

Jeff King,
10033 Clearfield Ave.,
Vienna, VA 22181

And now the library:

DMO1 – Classic 8–bit Demos (A collection of 7 demos from the early days of Atari.)

DMO2 – 8–bit Graphics Demos (4 of the more recent 8–bit demos.)

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DMO4 – German Sound and Graphics (An excellent art and music demo.)

DOS1 – DOS 2.5 (The standard Atari DOS.)

DOS2 – Rainbow DOS (An interesting graphics dos.)

DOS3 – Desktop DOS (A demo of an ST–type desktop for the 8–bit.)

DOS4 – DOS 4.0 (A developemental DOS never officially released by Atari.)

DOS5 – DOS 2.6 (Very similar to DOS 2.5)

DOS6 – MachDos 3.7a (An Atari DOS alternative.)

DOS7 – Mydos 4.50 (One of the best Atari DOS substitutes.)

DOS8 – DOS XE (The DOS released by Atari to provide support for the XF551 drive.)

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Disks are $3.00 each with $1.00 shipping per 3 disks.

Send all orders to:

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Sterling, VA 22170

XE Upbeat

I was taken to task recently in a letter written by Stephen LaFevers of North Pole, Alaska. What follows are excerpts from the original.

"I found your article in the June *Current Notes* a little downbeat. As a reader of *Antic, Analog, Current Notes, Computer Shopper* and *Atari Explorer*, I've gotten tired of all the b----ing and moaning about the lack of support for the 8-bit Ataris. Where do you guys live, Albania? These machines are alive and well where I live. There is plenty of product, first and third party peripherals, and software. And new stuff keeps coming .... I feel strongly that it is time for a change of tone. All this doomsaying is depressing and pointless. It hasn't changed anything. Well, that's not entirely true. The gloom and doom attitude of writers tends to make their predictions come true by holding down the userbase and discouraging developers who have been convinced by the articles that there is no future in writing programs for Atari machines."

Without disagreeing with Mr. LaFevers' fine remarks, I would like to add that many of us do live in Atari Albania. In my section of New York, there are no retail establishments dealing in 8-bit software (disk based) or peripherals. The only XE products in stock in toy stores are the XEGS and a dozen or so XE game titles on cartridge. For the largest city and suburban area in Central New York (perhaps 650,000 population) this is not an impressive figure. From what other readers tell me, my situation is not unique.

Nevertheless, as Mr. LaFevers points out, our "b----ing and moaning" can have a negative impact. By way of redeeming myself, I am offering the following upbeat recounting of my journey from computer obscurity to *CN* notoriety.

Looking Back

This is my third Christmas as a contributor to *Current Notes* and my sixth as an owner of an Atari computer. With that in mind, I would like to reflect upon my earliest days as an Atari user.

To be truthful, I bought my first Atari, a 600XL, months before Christmas of 1984. After reading an article in *Consumer Reports*, which stated that Ataris were the best buy for word processing, I purchased a 16K/600XL for $150, a 1010 tape recorder for $80, a 1027 letter quality printer for $300, and an *AtariWriter* cartridge for $100. I hooked the unit up to an old black and white television and shortly thereafter began the less-than-great Italian-American novel. An hour later, convinced that 16K couldn't contain even my paltry literary output, I returned the 600XL, plunked down an additional $110 and became the proud (albeit nervous) owner of an 800XL (64K).

I would like to say that I still am churning out articles today on that venerable machine. If I had kept it long enough, perhaps I would be using it right now. Unfortunately, it and I barely met before breaking up. *AtariWriter*, which had no inclination to write garbage to the screen while employed by the 16K wonder, found life unbearable under the rule of its 64K counterpart. This situation so totally unnerved me that I reboxed and returned not only my computer but the tape player, the printer, and the AtariWriter cart as well. The TV set went back to being a TV set, and my aged and infirm typewriter returned to active service.

ACT I -- CURTAIN

Later that year prices dropped dramatically on Atari equipment, so I decided to give it another go. This time I was determined to weather the experience. Since I always have been overwhelmed with too much of anything, good or bad, I decided to stagger my purchases over a nine-month period (and they say men don't have cycles!). First, for Christmas, I brought home a rosy-cheeked 800XL. After reading the manual (two minutes at most), I spent the rest of December fiddling with the keys.

In January I borrowed a programming book from a student and, over the next few weeks, taught myself a thing or two (and little else) about BASIC. To save my little gems, I required an electronic storage chest. Disk drives remained in the $300 range, and my teacher's salary was stuck in limbo. As a result, a $50 tape drive looked like a great deal.

Through the winter and into the spring, I wrote awful programs or typed in listings from Atari magazines and saved them to tape. For humor's sake I would like to recount all of the disasters that occurred to me while using a less-than-trustworthy tape recorder. Unfortunately (in retrospect), everything worked just fine. I didn't even mind the long waits while the tape slowly spun around saving or loading programs. It gave me time for reading, grading papers, eating dinner, shaving, and (in season) mowing the lawn.

In the late spring disk drives became affordable. and my tape player was retired from active service. By September I had added a Panasonic KX-1091 to the family. Atari lost my printer dollars because I wanted a unit that would interface easily with a number of different computers. Now that I own a Commodore 128 and an IBM compatible (in addition to my three Atari 8-bits), I am happy that I bought the printer I did.

For the next two years I used my 8-bit to write papers for graduate courses I was taking, to entertain and educate my children, and

to amuse myself. Most of my early word processing was done on COMPUTE!s *Speedscript,* which was priced right ($14.95) and contained most of the features I needed. The absence of a word count feature and a spelling checker made me put *Speedscript* aside in favor of *AtariWriter+*. When I didn'tadapt well to AW's commands, and found the checker too pokey for my liking (I'm a pretty fair speller anyway), I threw that fair maiden over for the vivacious *First XLEnt Word Processor*. Our love affair is still in progress.

END OF ACT II.

During the summer of 1987 I dashed off five "true experience" Atari-related articles and a review of my beloved work processor. After sending the review to *ANALOG,* and receiving a rejection slip in practically the same postal breath, I decided to give *ANTIC* a try. Before wasting more postage and risking a second broken heart, I thought of an alternative source for my literary musings--*Current Notes.*

In my neck of the woods, the 8-bits were never great sellers. At the height of their popularity, only a handful of computer retailers carried Atari software and hardware. One of these, Software City, sold *CN* (they don't anymore). I liked *CN*--no, I loved it. The articles were more detailed, the reviews lengthier, and the news more up-to-date than anything in the glossier Atari-specific publications. In addition, the whole show was being run by regular type people who might read my articles before they issued the mandatory pink slips.

In late July Joe Waters, publisher extraordinaire, called to say that he liked what I had written. Would I consider continuing with the "true experience" material? If so, he would run it as a regular column. I agreed, and for the next year I churned out features under the umbrella title of "Pieces of Eight."

A few months after assuming the position of XE/XL Editor (in February 1988), I put "Pieces of Eight" to bed permanently. Too much of my time was being taken up with soliciting and editing material from writers, contacting companies for software to review, scrounging around for news for this column, and writing "XE Update" and software and hardware reviews.

Recently less and less is being written about the 8-bits. New software is scarce, and new hardware scarcer. As a result, this column has shifted away from being exclusively "newsy" in favor of becoming more of a forum for *CN's* 8-bit contributors. That is fine with me. I am pleased with all the letters I receive, and I hope you enjoy hearing from others like yourselves--loyal Atari users.

CN intends to continue providing 8-bit owners with some sort of forum, even if only on a semi-regular basis. Naturally when there is news to report, we will make every effort to bring it to you. When there isn't any, we don't intend to make any up or rehash the story of our halcyon days of computer ownership.

The Atari 8-bits have lived through another year. That is more than can be said for one of my other computers--the C-128D. According to reliable information, Commodore has ceased production of that model.

The irony is all too apparent. The C-128 and the C-128D were very good machines and fully C-64 compatible. They also sold fairly well. Why then are they gone, and the equally excellent yet much older and poorly supported Atari 8-bit is still surviving?

The answer is quite simple really. 8-bit Atarians are rare and dedicated individuals. Almost single-handedly they have kept the 8-bits out of the orphanage, and they probably will continue to do so for many years to come.

PLACES FOR CURTAIN CALLS.

Diamond News. Alan Reeve, Diamond's creator, recently announced that *Diamond Write,* Version 1 is available. The package includes different fonts, mixing styles, search and replace, 80-column preview, and graphics printout capabilities, etc. XEP80 support is not included, but a spell checker is in the works.

Turbo Calc, a new spreadsheet on cartridge, is the first program compatible with Dataque's *Turbo816.* Features include automatic detection of memory type available, cell (block) move, copy, delete, kill, and edit. The program runs under Turbo-View Windowing Environment. Suggested retail price somewhere in the $30 to $40 dollar range.

Express! Shipped. Finally, from Z-MAG comes news that Keith Ledbetter has shipped the first batch of *Express!* terminal cartridges. This stackable cart does not even require a disk drive for simple terminal use with any standard Hayes-compatible modem. The program supports numerous batch transfer protocols and will work on Atari 1030, XM301, and SX212 direct connect modems. It features windows and drop down menus and, as a result, is easy to use. *Express!* is available from Orion Microsystems, 2211 Planters Row Drive, Midlothian, Virginia 23113 for $69.95.

Small Miracles' Miracle. Just when our most venerable 8-bit column, "Atari's Small Miracles," looked as if it had breathed its last, I received a disk loaded with appropriate programs from one of our readers, Frank Kweder. The first few of his miracles appear in this issue

Re-Inkers Abound. Our thanks to David Lefly of Chicago, Illinois, for this information about printer ribbon re-inkers.

"There are a number of these machines on the market, and there are probably text files somewhere on Genie or Compuserve telling how to build your own. The high road is to buy a 'MacInker' from Computer Friends, Inc. They have two "universal" re-inkers (cartridge and spool) and a large selection of printer-specific adaptors for them, as well

as cheaper dedicated multi-color cartridges (really!) and all sorts of ink--nine colors, indelible, OCR, UV resistant, etc. A universal model with ink and one adaptor is $68.50. Pricewise you can do better elsewhere, but Computer Friends has been around a long time and they'll probably still be there with an appropriate adaptor the next time you upgrade. They have a full-page ad every month in *Computer Shopper* and a free catalog available on request: Computer Friends, Inc., 14250 NW Science Park Dr., Portland, OR 97229. (503) 626-2291; 1-800-547-3303 (orders only).

If you use re-inked cartridges with a daisywheel printer, it's a good idea to change printwheels frequently and clean them with a soft toothbrush and 'Fantastik.' Getting you printer hammer gunked up with ink is the fast track to an expensive repair job. And while you're waiting for the re-inker, here's a cheap rejuvenation: open the cartridge, give the ribbon a quick shot of 'WD-40' (a little goes a long way) and let it dry overnight in some well ventilated place. If you've been using cheap generics, you may even find they print darker the second time around."

This generous advice was given in reply to a letter from Secundo Acua, which was featured in the October issue. Dave's letter also included a very interesting wish list, some of which I intend featuring in an upcoming *Current Notes*.

On Disk--Please! We greatly appreciate the articles, reviews, and lengthy letters we have been receiving from our 8-bit readers. In order to include this material in the magazine, we must have your submissions submitted on disk, either exclusively or with hard copy. As XE/XL editor, I am a staff of one. Although I am a pretty fair writer and know a thing or two about Ataris, I have a full time job and a half and am a two-fingered typist. Keying in anything more than a 200-word letter is, for me, a time-consuming and painful chore.

Use any word processor that is compatible with standard 40-column, 8-bit equipment (single or enhanced density). Do not include special characters for underlining, etc., and eliminate all return characters except where necessary to denote a paragraph shift. If you want your disk returned, please let me know. Sometimes the time and expense incurred in returning a disk makes the process impractical. Nevertheless, unless told otherwise, I do return the majority I receive.

As always I enjoy hearing from you, particularly after the Holiday Season when my moods worsen in direct proportion to the downward trend in the weather.

Until then, my best to all for a Joyous New Year!

XE GAME CART

AIRBALL

Review by Patrick H. Adkins

An evil wizard has just turned you into a large, inflated ball and left you in an enormous, maze-like, 150-room mansion. Your only hope--unless you want to stay this way forever--is to bounce and roll from chamber to chamber, up and down steep stairs and along high, dizzying walkways until you find his spell-book, which will tell you how to turn yourself back into a human being.

The way is filled with danger, but you can make it if you take firm control of yourself. All you have to do is avoid the bristling spearpoints, spiked balls, and prickly floor tiles that meet you at almost every turn. And to make matters worse, you have a small leak and are slowly going flat. You're not bouncing very well at all anymore, and unless you can find an air pump and reinflate yourself...

That's the far-fetched but amusing premise of a new eight-bit cartridge game from the Atari Corporation. As you bounce through the wizard's mansion, rolling the ball with your joystick and making it bounce with the fire button, you're treated to a virtually endless display of first-class graphics that are the real star of this game. Chamber after chamber appear, all vividly detailed, cleanly drawn, moody and imaginative.

Along the way you'll have the opportunity to pick up various objects--a flashlight, candle, or lantern that you'll need to safely navigate through dark chambers; precious stones and gold bricks to score points. Occasionally you'll pass air pumps, and usually it's a good idea to fill up even if you don't really need more air yet, since when you burst, you'll start over from the last air pump you used. (You have four "lives" per game, and the SELECT key allows you to pause whenever you feel the need.)

The basic idea of *Airball* (searching through a maze to find a magic object) is familiar, but the high-quality, atmospheric graphics make this variation a delight to play. Again and again I found that I had completely forgotton about the spellbook I was supposed to find and instead was simply exploring the wizard's mansion--to find out what fascinating sights lay in the next chamber and beyond. This is the type of game you'll still be playing hours after you should have stopped to eat dinner or take out the garbage. And even after you've found the wizard's spellbook and brought it back to the main room of the mansion, the game isn't over; the wizard isn't going to let you off that easily....

Airball comes in Atari's usual attractive packaging, with a four-page but completely adequate instruction manual. It's a fine, fun, fast, and fascinating journey through an intriguing fantasy locale, and the best cartridge game I've seen yet.

by Frank E. Kweder

[At the most opportune time, CN received over two dozen appropriate programs--some original, others adaptations--from Frank Kweder of Ft. Myers, Florida. All program descripions also were written by Mr. Kweder. Thanks to Frank, "Small Miracles" will be afloat for many issues to come.--LP]

BOX10:

A familiar old "BOX" program. Source unknown. The biggest difference here is using the joystick trigger to clear the screen. The plot continues from where it left off. Move the joystick (any direction) to simulate pressing CTRL–1. Uses Graphics 10.

```
5 REM BOX10
10 GRAPHICS 10:A=1:V=0
15 FOR Z=0 TO 8:READ W:POKE 704+Z,W:NEXT
Z:Y=INT(RND(0)*80)
20 FOR X=0 TO 78
30 C=C+0.354:COLOR C:IF C>15 THEN C=0
40 PLOT X,Y:DRAWTO 78-X,Y:DRAWTO 78-
X,190-Y:DRAWTO X,190-Y:DRAWTO X,Y
50 Y=Y+C/A:IF Y>190 THEN Y=INT(RND(0)*20)
52 S=STICK(0)
53 IF S<>15 THEN GOTO 52
58 ON STRIG(0) GOTO 60:PUT #6,125
60 NEXT X:V=V+1:IF V>8 THEN 80
70 GOTO 20
80 A=1+4*(A=1):V=0:GOTO 20
90 DATA 0,66,68,70,72,130,132,134,138
```

TRYNINE:

Same as above, but GR.9 and "TRY–angular" instead of square.

```
5 REM VARIATION OF BOX PROGRAM
10 GRAPHICS 9
20 FOR X=0 TO 78
30 C=C+1:COLOR C:IF C=15 THEN C=0
40 PLOT X,Y:DRAWTO 78-X,Y:DRAWTO 39,191-
Y:DRAWTO X,Y
50 IF STRIG(0)=0 THEN PUT #6,125
52 S=STICK(0)
55 IF S<>15 THEN 52
60 Y=Y+2:IF Y>191 THEN Y=0
70 NEXT X
80 GOTO 20
```

CNORBIT:

A little animation project derived from a VIC20 program in an old game magazine. The "APPLE bash" was not planned. I just used it to disguise a glitch I couldn't seem to get rid of.

```
5 DIM A$(7),SP$(6),L$(58):A$=CHR$(30):A$(7)=A$:
A$(2)=A$:SP$=" ":SP$(6)=SP$:SP$(2)=SP$
8 FOR X=1 TO 58: READ N: L$(X)=CHR$(N):NEXT X
10 GRAPHICS 0: ? "}": POKE 710,112: POKE 752,1:
SETCOLOR 1,7,14: SPEED=1: CL=14
12 COLOR 42: PLOT 9,4: DRAWTO 29,4: DRAWTO
29,20: DRAWTO 9,20: DRAWTO 9,3
13 POSITION 13,10: ? L$(1,13): POSITION 13,11: ?
L$(14,27): POSITION 13,12: ? L$(14,21);L$(28,32)
16 POSITION 13,13: ? L$(33,45): POSITION 13,14: ?
L$(46,58): POSITION 3,21: ? "APPLE";
27 POSITION 0,1: ? " ";
28 FOR I=1 TO 30
30 ? " ATARI";
40 GOSUB 300:? A$(1,5);
60 NEXT I
70 FOR I=1 TO 20: ? "ATARI";
80 GOSUB 300:? A$(1,5);SP$(1,5);A$(1,5);CHR$(29);
100 NEXT I
110 FOR I=1 TO 30:? "ATARI ";A$;
140 GOSUB 300: NEXT I:? SP$;CHR$(28)
170 FOR I=1 TO 20: ? "ATARI";
180 GOSUB 300:? A$(1,5);SP$;A$(1,6);CHR$(28);
200 NEXT I
210 GOTO 28
300 FOR DE=1 TO SPEED: NEXT DE
310 SPEED=SPEED+0.1: CL=CL-0.02
315 SOUND 0,(PEEK(84)+10)*3.3,10,PEEK(85)/5
320 IF SPEED>20 THEN SPEED=10
321 IF CL<6 THEN GRAPHICS 0: END
330 SETCOLOR 1,9,ABS(CL): RETURN
400 DATA 160,149,149,143,32,32,32,160,10,32,32,32,160
410 DATA 160,32,32,32,32,32,32,160,138,10,79,84,69,83
420 DATA 32,138,10,32,160
430 DATA 160,32,32,85,82,82,69,78,84,32,138,10,160
440 DATA 160,21,21,140,32,32,32,160,32,32,32,138,160
```

CNSCROLL:

Just a small demo program from an unknown source. ANALOG's recent Memory Map series had a

very similar algorithm. I have also used it in a graphics program that ANALOG just accepted but hasn't published yet. No conflicts, though. It is just window dressing in my program.

```
5 REM DERIVED FROM MEMORY MAP DEMO
10 GRAPHICS 0:POKE 710,0:POKE 712,0:POKE
752,1:POKE 709,154:POKE559,0
20 DL=PEEK(560)+256*PEEK(561)
30 POKE DL+10,39:POKE DL+11,39:REM TURN ON
VRT SCROLL BIT (7+32)
40 FOR X=0 TO 23
50 POSITION 11,X:? " ";:NEXT X
60 POSITION 11,7:? " -- GREAT FUN -- ";
70 POSITION 0,5:? #6;"ATARI small miracles
CURRENT NOTES";:POKE 559,34
80 FOR I=0 TO 15
90 POKE 54277,I:X=SIN(90):NEXT I:REM 54277=VERTI-
CAL SCROLL REG.
100 FOR Z=1 TO 200:NEXT Z
110 FOR I=15 TO 0 STEP -1
120 POKE 54277,I:X=SIN(90):NEXT I
130 FOR Z=1 TO 200:NEXT Z
```

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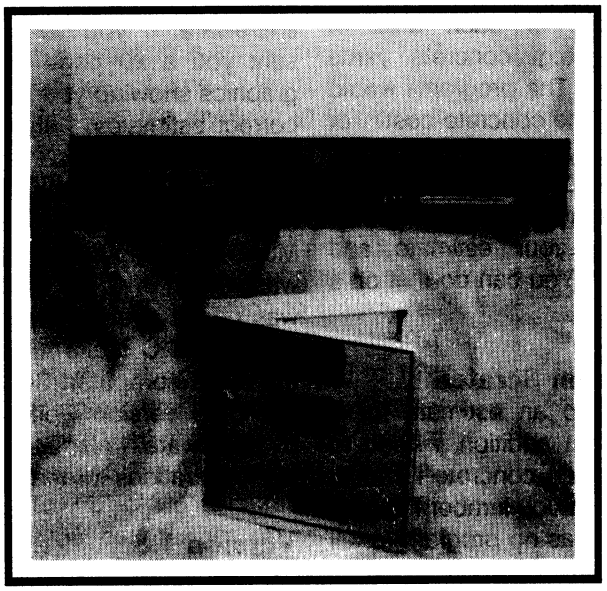

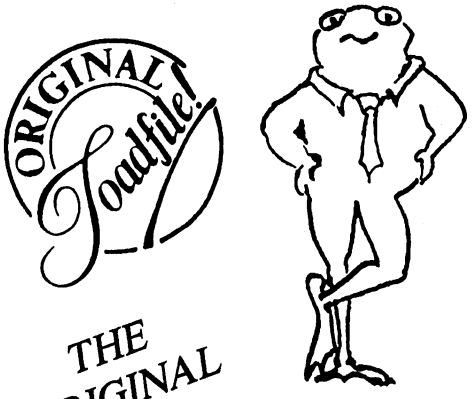

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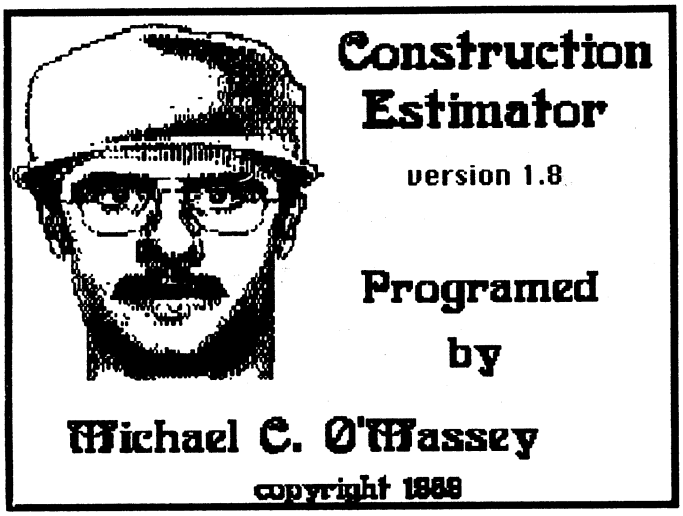


The Light Dawns

It all began with an Atari 400, then an 800, then a PCjr; now it's an Atari ST and a MS-DOS clone. With all of the computers that I have had and the time I have spent with the different computer clubs I have learned but a few things. Mainly, I have discovered that I like to program. I have always wanted to write a program and send it out as PD or shareware. I thought it might be fun. You know what they say (whoever *they* are). If you are going to write a program, you should write about something that you know.

Wow! What do I know? I know that I'm not a super computer programer--I don't know assembly, never will. I know that I will never be able to program a super game. I always seem to play catch-up, by the time I learn how to program something, it has already been done a few years earlier.

What Did I Know?

Write something that I know about.... Well I built my own house, and I have done some room additions, and I have worked in construction for the last ten years, maybe I could write a construction estimation program. Naw... I was sure that there were construction estimation programs already out there.

But I started looking, first in the ST market, then the MS-DOS market. I found some in the MS-DOS market and one for the ST. After looking at them, I realized that these estimating programs did no calculating for almost all of the main parts of a house. You had to know before hand the quantity and cost of each area of construction, e.g. concrete yards and their cost. The programs would ask "What is the concrete cost?" or "How many yards of concrete?" Well, what type of an estimation program is that? All they are doing is collecting your estimate and printing it out. You can do that on a spread sheet.

Starting from Scratch

When I do an estimate for a house or room addition, I need to know how much concrete I should buy and how much lumber I should order. There was no program to tell me that.

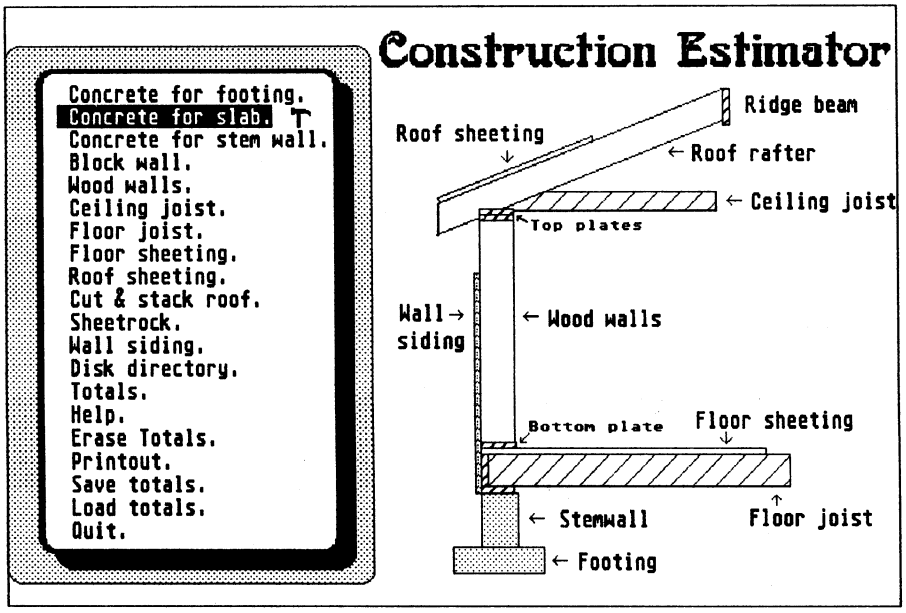
But now I had an idea for a program, and all I needed was the language to write it in. I did not like Atari Basic at all, and the new kid on the block was Megamax C. So I started my program with Megamax C. I tried to make it as easy to use as possible. Thus estimates could quickly be made without a long learning curve.

A House Being Built

With my first version (1.5), the user could make estimates quickly. However, it lacked some major functions like saving and loading estimates and a print out. But it was cute (I showed a house being built from the ground up--I had to throw in some graphics). I sent it out as shareware. If you sent me $15, I sent you a 20-page booklet with graphics showing you how to make correct estimates. I started receiving registration fees soon after. Well... I decided if it worked for the Atari ST it should work for the MS-DOS computer. All of my code was written in C, so all I had to do was port it over to my Sanyo, and with Turbo C make it work for the MS-DOS computer. Soon I had an MS-DOS version working and out as shareware. I also started receiving registrations for that program.

Version 1.8

About eight months ago I began updating both computer programs. This time around, I added some useful and necessary functions like saving and loading



estimates, a better printout and a user friendly interface. *Construction Estimator 1.8* uses a lot of bitmapped drawings and scanned pictures. As I learned more about C, I added more depiction to my program. I decided that using a lot of memory on graphics, in order to add class to my program was OK. The main menu (see figure on page 68) shows a cut away view of a house with a hammer icon to choose the function that is needed. Using my program is pretty straight forward. You are able to make a quick estimates, both of materials needed and the total cost. You can enter varying costs for materials as needed. For example, to estimate a concrete footing, just enter the length, width and depth of the footing and the cost per yard of concrete, the program will calculate the total yards and cost.

Construction estimation is something of an art and takes a great deal of time to learn. There are so many variables that are involved in building a house that your estimate can vary. While this program may not supply all of the answers, the main idea is to help in the estimate. With both computer versions, Atari ST and MS-DOS, the estimates (data files) are interchangeable. You can use the MS-DOS version to make an estimate and then later load it up on the Atari ST and modify it. I have also updated ver. 1.8 to 1.8a on the MS-DOS computer. This version will allow you to save your estimate in a .ws format (comma-delimited ASCII). This will let you load the estimate into *PC-CALC* (a spreadsheet program) so that you can further manipulate your estimate with a spreadsheet.

Currently I'm working on version 2.0 for the ST. This will be a commercial program and will sell for $39.95. Registered owners of the shareware version will be up-dated, and their registration money will be subtracted from the cost of the commercial version, if they choose to update.

In this new version added functions like rebar for footings, stemwall and blockwall, roofing, grout, soil excavation (trench and basement) will help to complete the estimate. Along with these added functions you will be able to include all of the information from your work sheet. Files will also be saved as plain ASCII or as *LDW* files (loadable into LDW).

If you are planing to build, try version 1.8. It's available from *Current Notes* library (CN #402) or from Genie, with two versions of 1.8--one for color and one for monochrome.

[Construction Estimator, Shareware $20, Michael C. O'Massey, 9910 U.S. 395, North Reno, Nevada 89506]

PUBLIC DOMAIN POTPOURRI

Shareware Sampler

By Brian Miller

Atari ST owners have been riding a roller coaster since our venerable computer was introduced a few years ago. We have drooled over the amazing advances which are promised just beyond the horizon. We have often seen those hopes dashed by delays and project cancellations.

Despite the ups and downs of Atari in a commercial sense, the world of public domain and shareware software has always been steadfast and true. On a regular basis, I will be passing the word about programs I have discovered through the *Current Notes* Library, Genie and other reputable bulletin board services.

I sure don't have a lock on the best and the neatest programs out there. I will rely on readers to clue me in to utilities, games, and applications which they have found to be useful, fun, or indispensable. I encourage software authors who would like to have their efforts known to consider sending their work. A few ST owners, I chief among them, are technical midgets. Please include a brief description of what the program does if it is more complicated than *Space Invaders*.

The single goal of this column will be to promote some semblance of satisfaction within the ST community. Atari owners will enjoy their computers more if they have software which they find helpful in some way. Aspiring "hackers" would be more inclined to persevere if they are praised, or better yet paid for their efforts.

To be sure we are on the same footing, I would like to briefly define Public Domain and Shareware software. Public Domain programs are written without any specific expectation for payment. The author will often ask for a contribution. But, as frequently, the author is looking for feedback and suggestions to improve his program which is distributed to the public.

Shareware authors expect payment for their work. They save on advertising and other costs by distributing their programs through bulletin boards. You are encouraged to use and share the program with others. However, the author expects you to comply with the stated registration requirements. I am confident *Current Notes* readers will support these folks whose tireless efforts help keep us content, as users. I will include as much detail about the authors as I am able.

I have droned on long enough. It's time I present three mini-summaries of programs which could be loosely tied together as "computer tutors."

GFACLASS

Written by Mr. Tom Hayslett

GFACLASS is an excellent tool for learning to program in basic. As the name implies, this tutorial program is specifically written with GFA basic in mind. While it is natural to feel a bit timid when first learning a new skill, an understanding and capable teacher can often help us successfully jump the first hurdles on the road to learning.

Within the scope of eight chapters, Mr. Hayslett covers all the basics, as well as commands and functions which give GFA basic its formidable power as a programming language. Before long the student is taught how to construct dialogue boxes, item selectors, and Gem Menus.

What really makes *GFACLASS* a first rate tutor is that it lets you easily switch between running program examples and reading the lesson. This feature makes the learning process much more fluid and much less tedious. You can load a lesson into the computer's memory and read it on the screen. You can then scroll through the chapter at your leisure. The program allows you to run any of the GFA programs referred to in a lesson. Once you have had the chance to see what all that strange code will do, you can return to the exact point you left off in the chapter.

How many times have you bought a book, perhaps judging it by its cover, only to be disappointed later? I found *GFACLASS* on Genie. (It has been included in the *Current Notes* Library #400.) For a nominal cost you can preview the tutor. If you are convinced that *GFACLASS* is a great teacher, you can pay the $5.00 shareware fee. You will have paid less than you would have for most text books, and you will be entitled to the additional support of the program's author.

SPEEDRDR

Written by Bill Destler

Have you ever envied those people who can read at astounding rates of speed? Those few who cruise in excess of 2,000 words a minute. The rest of us trot along, reading just barely faster than we can speak, around 250-300 words in the same span of time. I have been intrigued by the possibility of reading more efficiently, since I watched Evelyn Wood's Reading Dynamics commercials as a kid. I thought it looked a tad peculiar as her students used a finger to scan each line of text. But I always hoped I might be able to read War And Peace in 7 and 1/2 minutes some day.

You can now easily find speed reading courses designed for use with the computer. At least 3 commercial programs are on the market for IBM or Apple machines. You can even buy Evelyn Wood's course for the computer. She will have you frantically chasing your computer's cursor to increase your reading pace in no time.

I frankly don't know of a commercial equivalent for the ST. However, I found *SPEEDRDR* on Genie. While this public domain offering lacks a lot of the "bells and whistles" of the commercial programs, it has a feature the others don't have. Bill Destler's creation allows you to load and set the reading pace for any text file. Think of the ready store of reading material which is available for your computer. Countless READ.ME files, computer based magazines, and the latest bulletin board chit-chat can all be loaded into *SPEEDRDR.* You can tell the program how fast you would like the material presented. You can set the screen to scroll, or to display a single line of text at a time.

SPEEDRDR can test your baseline reading speed and comprehension. You can use the results as a guide to set your practice pace. While the help function is very brief, its suggestions are sound and in keeping with the tips the commercial programs offer.

I see no reason why *SPEEDRDR* shouldn't work as well as a program you would have to purchase. Practice and more practice is the real key to increasing your speed. *SPEEDRDR* gives you plenty of opportunity for that. Since it lets you load your own text files, you have little chance for becoming bored, or claiming you have run out of practice material.

The Assistant Chef

by Eric Coners

(CN Library #318) Eric Coner's program demonstrates the very essence of good Public Domain Software. *The Assistant Chef* is visually appealing, clever, and fills a useful purpose by providing a fun alternative to leafing through a cook book for a recipe. Mr. Coners wrote the *Assistant Chef* to fill a particular need he had which was to pique the interest of his fiance in the ST. He has freely distributed his work to the public, and asks for tips and feedback to improve the program. In fact, he notes features he would like to include in future versions. He also requests help in some areas of the program which were beyond his technical capability to improve. For example, he would like to replace the calculator with a point and click routine when selecting, viewing or marking a recipe.

The Assistant Chef presents a selection menu which is literally a menu. The standard cursor is replaced with a fork. Forty two recipes are included, many of which sound delicious. *The Assistant Chef* lets you edit the included recipes, and you can add your own as well.

The program lets you sort by recipe type, food group, and a number of other factors. You can view the recipe on the screen, complete with directions. You can also print out each selection.

July/August 1989

#345: Berthold Pics No. 1. 8 exciting Spectrum pics from John Berthold: Anasaz1, Blokblos, Duckneuv, Explore, Moonfest, Outback, Philtoo, Scape3c and spslide.prg.

#346: Spectrum 512 Utilities. From Doug Johnson: SPCPRINT (print Spectrum pictures directly to printer, color or black-and-white), SPCCONVR (convert Spectrum 512 pictures to Degas PI1), SPCVIEW (GFA Basic program to view Spectrum 512 pictures). Disk includes three pictures: laserbee, madonna, and redarrow.

#347: MOTerm Elite 1.41. The Ultimate Telecom Package for the ST, by Doug Johnson. Features many things that no other terminal packages contain, including medium or high resolution graphics which can be exchanged over the modem automatically, sound that can be transferred online, a new file transfer protocol called Dmodem that is faster and more accurate than Xmodem, built in text editor for editing of information captured off of a modem or other files, an automatic dialer that will dial phone numbers while you do something else within the program, the fastest Xmdoem file transfer routines yet available for the ST, and much more. Requires 1 Mb.

#348: Game Disk No. 18. Companion 1, color arcade action as you fly your ROCM, and Trivia Quiz, test your knowledge against the computer or other players. (C)

#349: XFORMER Programs No. 1. Includes Analog 35, 38, 41, 44. These are the Analog 8-bit disks converted to ST format for use with Xformer. Xformer is the Atari 8-bit emulator. (CN #263: ST XFORMER now has version 2.4)

#350: XFORMER Programs No. 2. Includes Analog 47, 50, and 55. More Analog 8-bit disks converted to ST format for use with Xformer, the Atari 8-bit emulator.

#351: Publishing Partner Utilities No. 3. 18 fonts for use with Publishing Partner: Binner, Blockup, Cyrillic, Futura Bold Condensed, Futura Block, Keyboard, Gothic, Lubalin, Old English, Oriental, Segment, Spokane, Stop, Timebold, Tyme/Helv, University, and Wilkes.

#352: Graphic Utilities. Metaview Prg/Acc by Ric Clayton. Program allows you to view GEM Metafiles in standard GEM windows. (Metafiles are files with a .GEM extension such as those produced by *EasyDraw* and GEM-Draw.) Will display any GEM Metafile, in any resolution, with or without GDOS installed, and (hopefully) run on any version of TOS. Image Editor DA V0.65 Demo by Mike Bergman (mono only), a tool to edit monochrome .IMG files for desktop publishing and related activities. Deluxe Slideshow V2.0, by John Brochu, combines all the currently popular ST graphics formats (Neochrome, Degas, Degas compressed, Tiny, and Spectrum) into one compact, but flexible slide show program. IMG Show, by Migraph, allows viewing of monochrome .IMG files on any resolution ST (low, med, hi, & Viking 1). Art Gallery, by Charles F. Johnson, shows Degas, Degas Elite compressed, Neo and Tiny pictures. ST Banner, print large banners out of small letters on your printers. Also Degasnap.prg and Snapshot.acc.

#353: Print Master Icons No. 3. Collect 1,2,3,4. A collection of 479 icons for use with Print Master.

#354: Print Master Icons No. 4. Collect 5,6,7. A collection of 470 more icons for use with Print Master.

#355: IMG Mortised Cuts. 19 IMG pictures: angel, artist, backsign, dinner, dog, dragon, elf, frntsign, jackbox, jester, mirror, paperboy, ship1, ship2, train, trumpet, two elves, umbrella, wide man.

#356: [illegible] Discontinued.

September 1989

#357: PageStream Fonts No. 1. An assortment of DEMO fonts available for PageStream. Note: these demos do not include the entire alphabet. Anglo, Opt, Typewriter, Downtown, Handwriting, Rock, Beginnings, Brushup, Karin ... +24 more fonts.

#358: Calamus Fonts No. 1. 15 complete fonts for Calamus. Chancery, Cursive, Condensed Cursive, Gillia, Gilly, Revue, Savings, Souvenir Medium, Souvenir Med Italic, Spokane, Study, Study Cond., Windy.

#359: Pentimo. This is a terrific puzzle game that will provide you with hours of entertainment. Place 12 pieces in box. Many variations, 100s of solutions, but try and find one! (M)

#360: Bermuda Race II. A racing simulation game. You have to learn the ins and outs of sailing to win this race. (C/M)

#361: Game Disk No. 19. Two arcade clones: Rocket Patrol (like Missile Command) and Trifide (like Galaxian). (C)

#362: A Dudley Dilemma. An AGT Adventure, by Lane Barrow. In this game, you play the role of a Harvard University student living in Dudley House in his/her quest for knowledge, adventure and a diploma. This award winning game is a very clever, humorous and challenging adventure in the classic style of Infocom. (C/M)

#363: Tark, Priestess of the first church, in her battle against the demon of dark desire, an AGT adventure by Philip Kegelmeyer. An extremely well written game based on a "Dungeons and Dragons" theme (complete with spells and hit points) where you play a priestess struggling against the forces of evil. (C/M)

#364: Rapture and Susan(R). Two more AGT adventures: Love's Fiery Rapture, by Natasha Mirage. A torrid tale of what could turn out to be THE perfect date. A parody(?) of romance novels like those published by Harlequin. This game demonstrates a very clever way to translate a "Choose Your Own Adventure" style game into an AGT game. Susan, A Lustful Game, By Bill Larkins. You attempt to score points with your girlfriend, Susan. An R-rated game for adults only. (C/M)

#365: Ring & Pork. Two more AGT adventures: Des Ring DesNibelungen, by Michael R. Harris. You play the role of Siegfried in an adventure based on the operas of Richard Wagner--complete with a very tender and loving Brunnhilde. A very unusual approach to an adventure game. PORK, by David Malmberg. A parody of the Infocom game of ZORK. If you were ever frustrated by ZORK, playing this game is your chance to enjoy the sweet fruits of revenge. (C/M)

#366: The Adventure Game Toolkit (AGT). This is a shareware product that lets you construct your own adventure games. Complete Docs included. Adventure games above are all compiled versions of games created with AGT. Programs on disk are ARC'd. (C/M)

#367: AGT Source Code. Includes (ARC'd) the source code to 9 additional AGT adventures: Colossal Cave Adventure, Crusade, Elf's Adventure, A Fable, Ghost Town, Paranoia, Odieu's Quest, The Squynchia Adventure, An Underground Adventure.

#368D: VIDI-ST No. 1. A VIDI-ST digitized animation, two animation sequences of a dunk shot and a pitch. Requires 1Mb. DS-disk (C)

#369D: VIDI-ST No. 2. A VIDI-ST digitized animation, star basketball player (V. Johnson) shooting a basket. Requires 1 MB DS-disk (C).

October 1989

#370: NORAD. Watch your screen as 97 satellites and meteors trace out their paths on your montior.

#371: Berthold's Pics No. 2. A second disk of 8 terrific Spectrum pictures by John Berthold. The Legend of the Lost Fuji, Msiau Chou Descending Into the Mist, Fantasy Figure 3, The Escape of Princess Mon-Haat, Skate Riguel, The Story Teller, Eilean Donan Castle-Scotland, Vlacherna Convent-Greece. (Color)

#372: [illegible] (See CN#401)

#373: Strip Breakout (R). Breakout game with a new twist. Breaking the bricks reveals picture underneath. 27 screens. Adults only. (Color).

#374: Codehead/C.F. Johnson Utility Collection. Collection of shareware products and three demos of commercial products from Codehead Software and C.F. Johnson. Includes Little Green File Selector v1.4, Pinhead v1.3 and more.

#375: Darek Mihocka Utility Collection. The complete collection of Darek's 'Quick' utilities (Quick ST to compete against Turbo ST, Quick Index to measure your ST's performance are among the 'Quick'utilities)as well as his Megablit paint program and Megawatt accessory.

#376: NeoDesk Icon Collection. A collection of 31 icon files for use with NeoDesk 2.0. Includes NeoDesk demo program. Files are ARC'd.

#377: Official Atari Utilities Disk. Includes Atari's latest Hard Disk utilities and booter (version 3.01) which allows more than 4 partitions and partition sizes of up to 1 gigabyte. Also included is the complete set of the 'official' Atari Rainbow TOS utilities and patches. (Rainbow TOS is the name for TOS 1.4). Includes the Hard Disk Ship ACC, Mouse Accelerator II and more.

#378: ELAN 1.5. Another nice programming language environment from The Neatherlands with sample source code and documentation in TEX format.

#379: Utility Disk #31, Disk Utilities. DCOPY 3.2A--the latest version of this terrific all around utility. DISKVFY--verifies a disk to

find the bad spots on a disk. FLOORMT2--Floormatter is a nice formatting program that runs in low resolutiuon. GEMLABEL--version 3 of a nice GEM based labeling program. ACK2PRG--an updated version of a program that shrinks the sizes of executable programs.

November 1989

#380: The Revolution Handbook. By Donald A. Thomas, Jr., 1989 ARTISAN SOFTWARE, this 'handbook' comes with a viewer program that allows you to browse through the handbook on the screen. Handbook includes the following chapters: Introduction, Questions and Answers, General Principals, Benefits to Entrepreneurs, Recommended Pledges, Participant Registration, How to Apply this Handbook, Copyright and Trademark Protection, Acknowledging the Facts, What I Can Do As: An Individual, An Atari Publication, A Celebrity Endorser, A Computer Widow/widower, A Dealer, A Distributor, Promotions Manager, A Software Publisher/Developer, A Teacher, A Trade Show Organizer, A Sysop, A Users' Group, and What I Can Do As Sam Tramiel.

#381: VanTerm Version 3.8! VanTerm is a full-featured terminal program for the Atari ST (c) 1987 by Wm. A. Van Nest, Sr. Besides the main VanTerm program (and its associated configuration and help files), this disk also includes DCOPY32.PRG (current version of DCOPY) - DCOPY is faster than ARC, compresses more than ARC, has all the ARC functions of ARCSHL, plus it formats diskettes, prints file, reformats files of many types, and more! (NOTE: this update replaces the earlier version, #265. Send in your original #265 and $1, and CN will be happy to update your copy.)

#382: SUB_CAL, Version 1.14. This is a new, improved and expanded version of Sub_Cal. Sub_Cal is a calculator with many, many extras. It will compute arithmetic expressions entered in a human-readable form and will also compute definite integrals, derivatives or solve equations. It will also solve polynomial equations up to the second degree. A simple plotting feature is included as well. The new Sub_Cal also allows for vector and matrix operations (including solving of linear equation systems). (NOTE: this update replaces #322. Send in your original #322 and $1, and CN will be happy to update your copy.)

#383: The American PaSTime Baseball Simulator, Demo Game Program - V2.00D, October, 1989. The American PaSTime Baseball Simulator provides a very rich and accurate simulation of the game of baseball, from the viewpoint of the manager. Results are based on the actual statistics of the players entered; variation from reality will be approximately the same as the actual variation players experience in real life.

#384: Geography Tutor Demo. This is the demonstration version of the program. Only the data base and map for EUROPE can be loaded into this version. The save functions have also been disabled. You have access to a range of functions which are only possible using the rapid analysis and graphic power of a computer such as the ATARI ST. You can learn about all the countries in Europe. Disk includes a full data base of useful facts concerning each European country. Not only can you view these facts, but you canplot them on the maps. You can also compare countries, search facts to be plotted, order lists alphabetically or by size etc..

Also included on this demo disk is a **READER PROGRAM** designed to help you read any text file. It lets your screen behave as a printed page. You can change to the next or previous page or flip to a page of your choice. You can also: search for text strings, show a table of contents, print any part of the text with references and notes, and save your print selection to disk or printer or both.

#385: Double Click Software Shareware Sampler Disk. This sampler disk from DC includes the following utilities. DC FORMATTER 3.02--formatting program with a host of useful options. MYSTIC FORMATTER 1.0--formatter in desk accessory format. DC XTRACT--extract programs from ARC files. DC CLOCK V3.3--places time clock in upper right corner of screen. DC DESKEY V1.0--a desktop menu selector using keystrokes. DC STUFFER V0.9--load in up to 32 desk accessories (DAs) into GEM.

#386D: JIL2D(tm) Shareware Drafting Package. A valuable drafting tool: you can create, measure, dimension, save, and restore drawings using JIL's unique interface. You can also make and use screen dumps, figure libraries, and parametric macros, just to name a few applications. System requirements: monochrome ONLY, DS, at least 1 Mb of ram. Includes MONOVIEW.PRG: (a short slide show presentation of the JILCAD system components.)

#387: Empire Map Collection. This is a collection of ALL of the maps for Empire we've been able to find--over 120 maps in all. This disk does require the game Empire from Interstel to be useful.

#388: Breach Scenario Collection. A collection of many Breach scenarios, Breach Cheat 2, and a squad leader editor. In order to fit this collection on one disk the scenarios are ARC'ed but ARC.TTP and ARC Shell II v2.0 are provided to extract the files.

#389: Game Disk #20: Star Trek. STOS variation of the Star Trek game. This game will NOT run on machines with TOS 1.4 installed!

#390D: Game Disk #21: Pile-Up. A STOS variation of the Russian game of Tetris. This game is on a DS disk and will NOT run on machines with TOS 1.4 installed.

#391: Game Disk #22: Super Breakout. A very nice variation of Breakout with an editor. Requires a monochrome monitor and it DOES work with TOS 1.4.

#392D: Spectrum Pictures No. 6: People. 17 Spectrum pictures (Alf, Anticad, Blade1, Clown, Donnaric, Ellen, Girl, Headroom, Kissme, Lady_clr, Laura, Lisaw, Madonna, Match5, Sam4, Samfox1, Terri.

#393D: Spectrum Pictures No. 7: Space. 20 Spectrum pictures (Aliennat, Callisto, Dethstar, Earth, Faces, Finhorn5, Glass, Juggy, Jupiter, Laserbee, Launch, Newtek, Outblue, Prism, Stardest, Timextal, Trek, Trontank, Voyager.

#394D: Spectrum Pictures No. 8: Cars and more. 18 Spectrum pictures (Appleton, Cobra, Convert, Decoy, Ferrari, Homer, Lilypond, Magnum, Mansion, Mazda,Ninja, Porsche, Redrx7, Redwing, Ship, Taxi, Tut, Tutmirr2.

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#395D-#399D: The TeX Distribution. Compiled by Horace Mitchell. TeX system requirements: 1Mb memory, double-sided drive. The TeX Distribution has a core of four double-sided disks and a fifth DS utility disk. These disks replace the earlier CN TeX release (#309D, #310D, and #311D). Send in your earlier disks and we will be glad to replace them with #395-#397 for $1 each.

#395D: TEX, and **#396D: DRIVERS.** Disks 1 and 2 contain the files for running TeX (and LaTeX) and for printing TeX documents respectively. These two disks are sufficient for trying out TeX. However, there are NOT enough font files included on Disk 2 for a complete implementation of TeX. Note also that Disk 1 (#395) includes the ZOO compaction program needed to uncompact the files provided on all five disks in the set. It also includes the TRAMDISK ramdisk program for those who do not have two double-sided disk drives.

#397D: METAFONT. Disk 3 contains the font generation program METAFONT, which can create any font that the printer drivers on Disk 2 need.

#398D: INITEX. Disk 4 contains IniTeX, a program for customizing TeX. Also on Disk 4 are the slide maker SliTeX and the bibliography database BibTeX.

#399D: PICTEX. Disk 5 contains an assortment of programs. PICTeX is a set of TeX macros designed for the creation of figures and graphs within TeX documents. MuTeX is a set of TeX macros and fonts for typesetting music scores. The INPUT2 archive contains various style files for LaTeX that are not part of the standard style set described in the LaTeX manual. The files LOCAL.TEX and ADDENDUM.TEX comprise a local guide for LaTeX along with errata for Lamport's LaTeX book. The file LATEX.BUG is the bug list for LaTeX, and the file LATEX.INS is the instructions for using TeX and LaTeX at Stanford.

There is little or no documentation for writing TeX and METAFONT files on these disks other than some sample files. This is deliberate. The documentation for TeX and METAFONT are, respectively, **The TeXBooK** and **The METAFONTBooK**, both by Donald E. Knuth and published by Addison-Wesley. The user who is not interested in the gritty details could probably get by with just **LaTeX: A Document Preparation System** by Leslie Lamport, also published by Addison-Wesley. LaTeX is a macro package designed to make TeX easier and more efficient to use at the expense of some flexibility, and the files for LaTeX are included in this distribution.

METAFONT is a very powerful font creation tool, and the user who wishes to design fonts with it will need **The METAFONTBook**. If, however, the user simply wishes to use METAFONT to produce the normal fonts

that TeX and LaTeX need, there should be enough documentation in this distribution for that purpose.

#400: GFA TUTORIAL. This is NOT a tutorial for those of you already familiar with GFA Basic. You won't find any code optimization routines or anything new and breathtaking here, just a plain and simple guide from square one for learning the use of GFA. For now, the GFACLASS.PRG, which is used to display the text files, only works in medium resolution color but mono users may read the doc files from the desktop as they're in straight ASCII format. --Tom Hayslett (GEnie T.HAYSLETT) *[See PD Potpourri, p. 70.]*

#401: ST WRITER V3.4. This is the latest version of this excellent word processor by Dr. Bruce Noonan. Disk includes **English, Spanish, German**, and **MagniWriter** versions, all updated to version 3.4. This version has several changes from version 3.0. Most spectacular is the Global Search and Replace function which is now roughly 60 times faster! The free memory byte counter can now accommodate values up to 95 Meg to be compatible with the TT which can handle more than 25 Meg of RAM. In non-GEM mode in many instances the Enter key acts the same as the Return key. The placement of the cursor with the mouse now updates the line/column numbers immediately (as opposed to updating them on the subsequent key stroke.) An info status line has been added on the GEM menu screen which keeps track of the name and path of the current file in memory. When you oversave a file which exists, you are warned, and the alert box tells you the name of the file which you are attempting to overwrite (nice, in case you click on the wrong file, or type in a name which you didn't know was already a file in the same directory). If you have TOS 1.4 in ROM, file selector boxes now indicate their function (eg., did you select delete, load, save or what??). All disk input/output has been updated and thoroughly debugged. This version also fixes some bugs in V3.2 and V3.3 in the Search and Replace that precluded null replacement. As always, if you find any bugs, let Bruce know. Bruce Noonan, M.D., Compuserve [72407,504] or Genie [B.Noonan].

#402: Construction Estimator V1.8. *See article in this issue, page 68.*

#403: Utility Disk #32. (Color) Note, CHEETAHC, GEMRED, and SPEEDRDR also work in monochrome and are on the mono utilities disk (#404). CHEETAHC--handy program for copying multiple files from one place to another. GEMRED--redirects the output of programs such as screen output to a printer or file. ADBASE14--an address database program. DSKCHART--displays a chart of disk usage. FFIND12--a disk library program. SPEEDRDR--improve your speed reading.

#404: Utility Disk #33. (Monochrome) PUBPAINT--a pd paint program from Germany--docs are in German. CHEETAHC--handy program for copying multiple files from one place to another. GEMRED--redirects the output of programs such as screen output to a printer or file. SPEEDRDR--improve your speed reading.Note CHEETAHC, GEMRED, and SPEEDRDR also work on Color and are on #403.

#405: DeskJet Utilities & Drivers. The following files are on this disk: ADDRESS2--Programs to address envelopes with the HP DeskJet. COMPACT--a very handy program for hard drive users to print out directories on a DJ at 20 cpi (this program also works with Epson compatible printers using superscript). DESKJET.CFG--Word Writer ST driver for the DeskJet. DJETBOOT--if the DeskJet is online when the system is booted with this program in the AUTO folder then it will set the DJ to draft mode. DJDEGAS--a program to print any DEGAS .PI? picture on an HP DeskJet. The results are said to be better than using the Epson emualtion cartridge and screen dumps. DVI_DJ--DVI output driver for the DeskJet and TeX. EPSJET--not a great DJ driver but a workable one to give graphics output comparable to an Epson MX-80. FS_DJET--a DJ driver for installation within Fleet Street Publisher v2.0. HPDSKJET--DeskJet printer driver for use with First Word Plus. JETLAB11--a labelling program for use with the HP printers that supports two label sizes and has several nice features. JETSET--an accessory to allow easy configuration of the HP DJ. LASERJET--downloads softfonts to either a DeskJet or a LaserJet. P_OR_SAV--two variations of a program (one for DeskJet owners) that allows one to print or save a screen in an average of 3 sec. SHTPDJ--printer control file for using an HP DJ with Sheet. SHTPDJP--printer control file for using a DeskJet Plus with Sheet. STW_HPDJ--ST Writer printer driver for the DJ internal ffonts. TESTFONT--two test softfonts for the DeskJet (Candyland and Camelot).

#406: Utility Disk #34. There are three utilities that work in both color and monochrome on this disk: ASSASSIN--a great help in simplifying the modification of GDOS ASSIGN.SYS files; BOOSTV09--a beta version of a program that works very well in allowing one to select which programs and DESKTOP.INF files are used at bootup; DESK MANAGER v2.7--another update to another great program from C.F. Johnson and provides a GEM interface for the user to select various bootup options.

#407: SHEET Demo. SHEET is a 4-in-1 integrated package. It is a spreadsheet program, database manager, charting program and BASIC interpreter. The charting program can generate graphs on screen. If you have GDOS installed, you can set the output to meta-file or printer. The charting program can also generate BASIC commands for drawing the graph. The demo version has Save and Load WKS disabled. Conversion program for converting between SHEET and Lotus 123 file format is available for registered users.

#408: Ani ST. (Color) By Jim Kent, Program Copyright Dancing Flame, 1987. Documentation Copyright Antic Publishing 1989. This program and documentation may be freely distributed. You may be familiar with the program previously marketed by Aegis as ***Aegis Animator***™. Jim Kent, who wrote the program, has received the rights to it back from Aegis. Citing an inability for people to find the program, he has entered it in the shareware market under the new name Ani ST. The suggested contribution is a smile. The only change made in the program is a fix to a problem the program had running with GDOS.

Great animation is a collaborative effort. In a typical cartoon, the chief animator only draws the principle image. Later, someone called a "tweener" comes along and draws all the in-between movements. In the film Who Framed Roger Rabbit?, for instance, if a scene called for Roger's eyes to pop out of their sockets, the cartoonist would draw the beginning of the action (the eyes ready to pop) and the end of the action (the eyes fully out of the sockets). A tweener would then draw in everything that happens in between, one frame for each movement.

As you can guess, there are few people with enough patience and skill to be good tweeners. Computers, on the other hand, have nothing if not endless patience. And with Ani ST you can turn your ST into a professional tweener in no time at all. A color monitor is required.

As a computer tweener, Ani ST excels in what is known as metamorphic polygon animation (polymorphic for short). In this type of animation you draw an initial shape and move it into another shape. The computer generates the in-between shapes automatically. You can do this over a painted (.NEO or .PI1) background or you can cut out pieces of a picture (CEL's and MSK's) to move along a path, color cycle the result, then fade to black as the polygons shrink in the distance.

#409D: CYBER ANIMATIONS: VISITOR & FROGGIE. VISITOR is a 230-frame, 15-second loop animation in the Cyber Paint .SEQ format. It was produced with CAD-3D 2.0 and the Cyber Control language with image processing in Cyber Paint.

The scene opens with a ground level view of a group of ancient Greek columns. They are bathed in moonlight and stars are twinkling in the deep night sky. Suddenly, a spacecraft zooms in through the columns from above. The craft is made of many bright, rotating lights and illuminates the columns, silhouetting the ones it passes behind. It slows to a crawl as it passes closely between two columns and then gracefully accelerates toward the camera, slowing to a halt just before the lens.

The ship pauses here for a moment allowing us to admire it's construction--the body of the ship is in outlined mode, giving it a metallic paneled look. The lights and colored rings also display for us--colliding and then spinning apart. The entire effect is enhanced by the background becoming slightly out of focus. The ship accelerates away. We catch a final glimpse of our visitor streaking away across the night sky, leaving only the twinklying stars as witnesses.

Order disks from CN Library, 122 N. Johnson Rd, Sterling, VA 22170. Disks are $4.00 each. Add $1/(6 disks) for S&H up to a max of $6.00. Quantity discounts: 10 disks for $35, 35 disks for $100. 50 disks for $150.

CN Spectre Library

These disks contain Mac programs for use with the SPECTRE Macintosh emulator. Disks are $4.00 each. Order from CN Library, 122 N. Johnson Rd, Sterling, VA 22170. Add $1 for every 6 disks for S&H. A "D" next to the disk number, e.g. S3D, indicates a "double-sided" disk. (Disks require 128K ROMS)

S1: MacWrite 5.0 Demo--(Cannot print/save but can load and read doc files.)

S2: MacPaint 2.0 Demo--(Cannot print/save files but can load, view & create them.)

S3D: Red Ryder 9.4--Powerful telecommunications program. Docs, utilities included.

S4D: Aldus Freehand Demo--A Videoworks II interactive demonstration of Freehand drawing program.

S5: Games #1--Banzai, Monopoly 4.0, ATC 4.0, Mines, New Daleks, Brickles 4.0

S6D: PowerPoint Demo--(64K ROMs Compatible) Fully working demo version of this popular Mac program for planning, composing, and creating complete presentations.

S7: Games #2--Space Bubbles, Stratego, Investigator #1, Towers of Hanoi, Marienbad.

S8: Image Studio Demo--(Does not save) A photo retouching lab, modify digitized images in 65 grey scale levels.

S9: Telecom #1--StuffIt 1.51, StuffIt Users Guide, Freeterm 2.0, Freeterm 2.0 Documentation, TermWorks 1.3, Packet III ver 1.3.

S10D: Stacks #1--Concentration, Hyper-Gunshy, Dinosaurs, AutoStack, Home 1.2.

S11: Utilities #1--MacEnvy, Benchmark, DiskTimer II, SampleIt 1.21, SampleIt Docs, Apfont 3.2, HierDA, Fever, OnCue 1.3 DEmo, ScreenDump II, Findsweel 2.0 Demo

S12D: Full Impact Demo--Great spreadsheet program. (No save feature.)

S13D: Stacks #2--VisualStack, Chem Flash Cards, DisplayPict 1.4, Indigo Gets Out, AutCat, Animal Stack, Comic, OnTheBeach, Name That Plane.

S14: Utilities #2--Big Das runner, Mac II Icons, DiskParam, Utilities 1.5.1 Guide, Unstuffit DA 1.5.1, Auto Unstuffit Installer 1.5, Repair 1.2, ICON Designer, Viewer 1.5.1, SuperClock 3.1, SuperClock Doc ToMultiFinder, Interferon 3.1.

S15: Games #3--Darts, MacCamelot, BricklesPlus, Gravitation 4.0, Swamplord

S16: DAs #1--NekoDA, BezierDa and Docs, SnapShotDA 1.2, Adventure, VirusDetective, BreakKey, SysErrTableDA, PinUp Clock DA, Freemem, New Scrapbook DA

S17: Sounds #1--SoundMaster w/22 sound files for use w/V1.9 of Spectre.

S18: Graphics #1--1Dmata, DAfx 1.32, 3dEDIT, Fly Saver, Kaleidoscope, Optical, Pattern Blocks, Rae, Turbo View 1.01, MacPaint Shortcuts, Desktop Shortcuts.

S19D: Hyper Utilities #1--Deprotect Stack, XPICT, Moving Cursors Tutorial, Button Manager, Stack Compacter, Field Line Numberer, CardMover, Six Little Goodies, MH PowerScripts Sample, ShowDialog1.5.

S20D: MacDraw II Demo--VideoWorks format provides tour of latest features.

S21: Utilities #3--File Scan, Jaws Icon, File Master Icon, File Monster Doc, SnapShot Installer, Black Hole 6.0.2, Looney Tunes Icons, Dog Trash Icon, Shredder Icno, UDS/M1.1, Virus RX 1.4a2, System Font. Some icon files require ResEdit for installation.

S22: Sword of Siegfried--Graphics/text adventure (requires v1.9 of Spectre).

S23: Sounds #2--Sound files may also be used w/SoundMaster on #S17. (10000 Marbles, Any Sound 1, Any Sound 2, Bad Disk 1, BVad Disk 2, Beep, Beep Sound 1, Disk Sounds 1-4, Don't Worry Be Happy, Ka-Chung!, Rolling Your Own, Type Key 1, Type Return 1, Type Space 1.)

S24: Games #4--Dragon 2, Zoony, MazerLazer, and demo of ShufflePuck.

S25D: MacMoney Demo--Personal finance program, prints but does not save.

S26: Fkeys #1--23 fkeys and fkey related applications (Analog Clock, Clock, CopyDisk 3.0, Craps, F-KEY Installer, FadeKey, FileInfo, fkey, Fkey File Installer, Fkey-DA Sampler 2, FkeyView 2.5, FullMoon Calender, InfoKey, LaunchKey, MacAlmanac, Pipeline, ResC-Viewer 4.5, SafeLaunch 2.2, SpaceWarp, StripTease, Unpack, Ver Reader 3.0 and Windows.

S27: Games #5--3D Checkers V2.0, Ballistics 2.0, Consternation 1.0, HangMan, Peg Puzzle Pak, UnBreakout.

S28: DAtabase Builder Demo--Full featured database in a Desk Accessory.

S29: Sounds #3--Talking Moose 1.21 and 9 sound resources for MacCD (#S23) or SoundMaster (#S17)--Archie, Bad Disk 3, Beep Sound 2, Disk Sound 5, Disk Sound 6, Key Click 1, Oh Yeaaahh!, Mac Sound 1, and Startup Sound 1.

S30: Utilities #4--Init Cdev, Assassin, BundAid, Curse the Finder, Easy Icon, Finder Cursor Icons, Finder Icons, HD Mini-Icon, IconManager 1.1, JerryCan, Murphy Init, NeVR Init, ScrollMBar CDev, System Icons+, Version Sleuth 1.0, What, and Windows.

S31: DAs #2--Address Book 1.1.2 w/docs, Artist+ 2.01 w/docs, BlackJack, Calc 3.0, Calendar 1.7, Catch, dCAD 3.0 w/docs, Diskinfo 1.2, Maxwell 2.2a, MegaCalculator, SuperHelp w/docs, VirusDetective 2.2.1 w/docs, and windows.

S32: VideoWorks w/Sound--6 VW animations w/player, sound resources, and MacinTalk (1 Mac to go, Apollo, Marbles, People Wall, ShortStop, and The Cauldron.)

S33D: HyperUtilities #2--GetString XFCN, HyperScrap, LockField, PluckString XFCN, Recover, Script Lister, Script Access, Stack Analyzer, Stak-X Demo, Unity, Virus Encyclopedia, XFCN miscellany, Zoomer XCFN).

S34: Excel Templates #1--Macro, Amort, Sch, Apod 1.0, Budget, Checkbook, Clock.CH, Clock.MS, Clock.WS, Commands, DB.Form, Excel Budget, Expenses, Exps, Inc, IRA, Load Calc Master2, Load MaxTime 2, Matrix, MortAmt.MS 3.0, Replace, Savings Account, BioChart, BioRhythm.

S35D: HyperStacks #3--Atoms, Bird Stack II, Helicopter Stack, HyperIRA, Scan Stack 3.

S36: Sounds #4--Includes A Wish, I don't know, I know you are, Mecca jumbi, Need Input!, Unacceptable, Ax Headroom, Cheap-Beep, Ayaaaah!, Boom!, aooooh, game over man, monkey, and vulcan mind.

S37D: HyperStacks #4--StackArt Vol. 1 (100 clip art pics).

S38: Games #6--Cairo Shootout 1.2a, Puzzl 1.1, and Stunt Copter 2.0.

S39: Utilities #5--Init Cdev 2.0, About IOnit Cdev 2.0, Moire Cdev, Moire Screen Saver Docs, Moire Cdev to Init, Hierda .9983, RAM check, SnapJot, SuperClock 3.4, Timepiece, Virus Detective 3.0.1, Wind Chooser 1.0.1, Why 1.0.1, QuicKeys demo.

S40D: HyperUtilities #3--Christopher's XSTAK4, How a Virus Works, IConjurer, and Progress XCMD 1.1.

S41: Productivity #1--Albun Tracker 2.0.1, Amortize 2.4, Check Book 2.0, Road Atlas, and Smallview 1.3.

New for December

S42: Productivity #2--Address List 1.5.2, BiPlane 1.0.1 (spreadsheet), Doctor 2.35 (makes self launching documents), and Mac Mailing 1.4S (maillist program).

#S43: VideoWorks w/Sound #2--Hello Amiga, MacPaint Vid, Movies 3, My1stVid, Trash, Vamp NY 1, and China Doll. Requires V1.0 or higher of Spectre.

S44: Utilities #6--Black Box 1.5, Com plete Delete, Earth Init, FFDA Sampler, File Fixer, IconWrap Init, Macify 2.5, MacSpeed, Repair 1.4, Rescue, Scrolling Menu Installer, Shredder 6.0, SystemVersion, TextDiff, TFinder 2.2, ToMultifinder 2.3, Vaccine 1.01, and Version Reader 2.2.

S45: Graphics #2--MandelZot 1.4.1, Micro Swarm, Notebook 1.0, NoteNote5, PyreWorks, ScanPaint,SelectPaint, and ViewPaint 1.7.

S46: Everyman 1--Graphics/text adventure. Requires V1.9 or higher of Spectre.

NOTE: The following disks from our library of **Magic disks** for use with the Magic Sac Macintosh emulator also work with Spectre.

M5: Disk Librarian, M12: MacBillBoard, M19: Pinball Construction Set Games, M29: PCS Games #2

ADVENTURE GAMES: M17: Dungeons of Doom 4.0, M23: Vampire Castle, M24: Deep Angst, 1 Mb, M31: Black Wizard, M36: Castle of Ert, M40: Hack, Version 1.03, M41: Radical Castle, M63D: Mountain of Mayhem, M65D: Deep Angst II, M66: Intruder.

FONT DISKS: M13: Fonts #1, M14: Fonts #2, M16: Fonts #3, M32: Fonts #4, M35: Fonts #5, M42: Fonts #6, M44: Fonts #7, M50: Fonts #8, M61: Fonts #9, M64: Fonts #10, M67: Fonts #11

CLIP ART DISKS: M33: Clip Art #1, M52: Clip Art #2, M55: Clip Art #3

COMMERCIAL DEMO DISKS: M37: Mac-A-Mug Pro Demo, M38: Video Works Player #1, M39: Demo Disk #2: Anatomiser, DeskPaint, and SuperPaint, M54: Design Demo Disk, M59D: Demo Disk #3: Kaleidagraph, Geographics II, M62: Demo Disk #4: Math Blaster, Blob Manager Demo.

HYPERCARD DISKS: M48D: HyperStacks #1, M49D: HyperStacks #2, M56D: HyperStacks #3

NOTE: CN disks cost $4.00 each but quantity discounts are available:

10 disks for $35
35 disks for $100
50 disks for $150

Add $1/6 disks for shipping and handling up to a maximum charge of $6. Order from CN Library, 122 N. Johnson Rd, Sterling, VA 22170.

WAACE GOINGS ON

The Challenges Ahead

John Barnes,
WAACE Chairman

This is the time of year when the smoke is clearing away from AtariFest and the WAACE clubs will choose their new leadership. The people I have spoken to recently give me grounds for optimism that our new club leaders will rise to their tasks as well as the old ones did.

The conditions that these people face will differ from the ones that we have encountered. The dominant question in this area is What will the Atari marketplace be like in 1990? This question is important to us because it bears importantly on the way our groups organize themselves. What new things can we expect to learn? What interests will bring in new members? How can we serve the interests of our current members?

My crystal ball tells me that the Atari marketplace is maturing. It is doing so more slowly than we might have liked, but new products and improvements on old ones do seem to be coming down the creek in a steady trickle. The character of the software tools we use to bend our machines to our will is becoming better established. New introductions are incremental replacements for existing products rather than totally novel creations.

New products from Atari itself will be unlikely to affect the marketplace at the consumer level. The STacy, the ST^E, and the TT will probably be targeted at a more upscale market.

This means that we will not have "gee whiz" kinds of things to attract new followers. We will have to work with our existing membership base, which, as *Current Notes* circulation figures indicate, is dropping steadily. I find this to be an alarming trend. We must give top priority to reversing it.

The first step in reversing this trend is to work harder at member retention. The single most critical component of this is contacting existing members whose memberships are about to expire. If we can retain half of those who would otherwise disappear through cancellation of their memberships, we would be in much better shape.

We must also work harder to recruit new people. We have very fine products and we have every right to be proud of them.

The registration cards from the Fest demonstrate that the number of people who came to AtariFest from our local area far exceeds the number of people who are current members of WAACE clubs. I have separated the cards out geographically and I am asking each group to go through their cards and contact the people who were interested enough to come to the Fest. They might well be interested in some deeper involvement.

We then need to reach out to new people. Our groups need to be visible in stores, in the calendar pages of our local papers, in the schools, and wherever else we can get a foot in the door. I am asking the WAACE Board to initiate a project in which we take certain of the materials that were used in the Fest program and prepare a pamphlet that can be given to stores to introduce their customers to our clubs. These pamphlets would also be available at other computer shows that occur throughout the area during the year. These other shows represent an opportunity for us to take the Atari message to people who have not seen it before. I hope that WAACE can coordinate efforts by the individual groups to put in appearances with tables, demonstrations, and seminar presentations.

AtariFest '90

The WAACE Board members are essentially unanimous in their determination to do AtariFest '90. The approach currently being studied includes use of paid exhibit space in a hotel or other exhibit center.

The advantage of this approach is that we will be able to set our schedule much earlier than we can with the high school and that we will not be in conflict with so many other uses of the facility. The task of getting advance commitments and publicity should be greatly simplified.

The disadvantage is that it will cost much more. It is likely that we will have to charge a nominal admission fee and that prices for vendor space will have to be increased significantly.

We are working to keep the show on the Columbus Day weekend, which means show dates of 6 and 7 October for 1990. Show dates in August and over the Labor Day weekend were, unfortunately, incompatible with too many schedules although the cost would have been much lower.

The press of scheduling means that this work has to be done now if it is to be done at all. By the time you read this we may have already reached a decision. If this is the case, the framework will already be in place for the new WAACE Board which will assemble in January.

My Thanks

In closing this, my final report, I would like to say that I have found the job of WAACE Chairman to be a rewarding one. Our team has weathered some tempestuous times to put forth a superb effort. I do not think it is an idle boast to say that AtariFest '89 was the best ever. I want to thank the WAACE board for giving me the opportunity to participate in this work. I stand ready to assist the new leadership in whatever capacity I can.

WAACE Calender

DECEMBER

10 NOVATARI Main Meeting
12 WACUG Meeting
13 Sterling Chapter Meeting
19 MAST Meeting
21 AURA Meeting
21 MAST Meeting

JANUARY

14 NOVATARI Main Meeting
16 WACUG Meeting
17 Sterling Chapter Meeting
18 AURA Meeting

AURA Report

by Neil A. Johnson,
AURA President

AURA is alive and strong here in Silver Spring, Maryland. Our last meeting featured the most popular desktop publishing programs we could muster up, including *PageStream*, *Word-Up*, *Calamus* and Timeworks *Publisher ST*. Some of the fine public domain and shareware products were also demonstrated.

This month (on the 21st) will be our semi-annual GAMES theme. Featured will be several of the interesting toys and programs we gathered at AtariFest '89. Members, both seasoned and new, are asked to bring at least one of their favorite programs to demonstrate for the Club. Also, programs for designing Seasons Greetings Cards will be demonstrated for those resourceful enough to use their Atari for this otherwise expensive holiday ritual.

Coming January 18th will be Taxes and Spreadsheets '89, as well as the annual AURA elections. Please make an extra special effort to attend as elections are crucial to the organization of AURA's resources and planning. All nominations will be taken at this meeting; however, anyone desiring to be a candidate can also submit to the president a written statement if he or she will be unable to attend the January 18th metting. As for the theme, if you have any templates or other useful bookkeeping utilites--bring them!!!

Remember that December is AURA's BIGGEST month for neat door prizes!!! See you there!

WAACE CLUB CORNER

This space is made available to WAACE member clubs for publicizing activities. Material for this column must be in the hands of the Clubs Editor by the 3rd of each month. Send copy to Ed Seward, PO Box 2699, Merrifield, VA 22116. Material can also be uploaded to the ARMUDIC BBS.

NOVATARI: Northern Virginia Atari Users' Group

President	Bonnie Little	703-444-2419
ST VP	Ed Seward	703-573-3044
8bit VP	Nina Kraucunas	703-250-3572
Membership	Earl Lilley	703-281-9017
Treasurer	Gary Purinton	703-264-8826
ST Librarian	Frank Chan	703-960-0474
8-bit Librarian	Geoff DiMego	703-425-5030
8-bit mail	Thom Parkin	
ARMUDIC Sysop	Scott Ogden	703-450-3992

NEW MEMBERS: Dues are $24/year/family which includes a subscription to CURRENT NOTES and access to more activities. Join at the main meeting or at a chapter meeting or by sending $24, payable to NOVATARI, to NOVATARI, PO Box 4076, Merrifield, VA 22116.

NOVATARI MAIN MEETING: second Sunday of the month at the Washington Gas Light Building, 6801 Industrial Rd, Springfield, VA. Take 495 to east on Braddock Rd.(620) to south on Backlick Rd (617). Left on Industrial Rd. Washington Gas Light is the second building on the right. 5:30 Programmers SIG; 6:15 announcements, open forum, door prizes; 6:45 VAST and 8BIT SIG meetings.

NOVATARI Chapter Meetings:

Mt. Vernon, 1st Thursday, 7:30 Contact Ron Peters at 780-0963.

Sterling, Sterling Library, 7:30-9:30, Wed after the Second Sunday Contact Richard Gunter at 471-7765.

Vienna, 4th Sunday, Contact Ed Seward 573-3044 for time and place.

A.U.R.A.: Atari Users Regional Association

President	Niel Johnson	301-540-1794
8-bit VP	VACANT	
16-bit VP	Ira Horowitz	301-421-9507
Treasurer	Bob Brock	301-268-2554
Membership	Bill Brown	301-279-7537
8bit Librarian	Wayne Heiden	301-330-0130
16bit Librarian	Joe Russek	301-946-7593

MEETINGS: Third Thursday of each month in the Multipurpose Room at GRACE EPISCOPAL SCHOOL. The school is on the east side of Conecticut Avenue, 1/4 mi.north of the Connecticut Avenue (North) Exit from I495. Library and swap table sales begin at 7:15, the meeting begins at 7:30. We have separate XL and ST demonstrations. There will be 8-bit and 16-bit door prizes.

CORRESPONDENCE. All correspondence, including membership renewals, changes of address, etc. should be sent to: AURA, P. O. Box 7761, Silver Spring, MD 20910.

NEW MEMBERS. Dues are $25/year and include subscription to CURRENT NOTES. Send name, address, phone number, and check to above address.

F.A.C.E.: Frederick Atari Computer Enthusiasts

President	Chris Rietman	301-791-9170
Vice President	Mike Kerwin	301-845-4477
Treasurer	Buddy Smallwood	717-485-4714

MEETINGS: 4th Tuesday, 7 - 9:30 pm, Walkersville HS, MD Route 194, 1 mile north of MD Route 26 (Liberty Road). July and August meetings will be held at St Paul's Lutheran Church, 14 W. Pennsylvania Ave, Walkersville, MD.

NEW MEMBERS: Dues are $25/year/family and include a subscription to CURRENT NOTES. Join at meeting or send check, payable to FACE, to Buddy Smallwood, PO Box 2026, Frederick, MD 21701.

G.R.A.S.P.: Greater Richmond Atari Support Program

President	Mickey Angell	804-744-3307
Vice President	Terry Barker	804-379-8175
Secretary	Tom Marvin	804-233-6155

MEETINGS: 2nd and 4th Thursday, at La Prade Library, 2730 Hicks Rd.

Dues: $20 per year (no CURRENT NOTES).

WACUG: Woodbridge Atari Computer Users' Group

President	Lou Praino	703-221-8193
VP	Ron Dunn	703-494-4260
8Bit VP	Darrell Stiles	703-494-9819
ST VP	Bill Parker	703-680-3041
Treasurer	Kitty Parker	703-680-3041
Librarian	Frank Bassett	703-670-8780

MEETINGS: 7-9PM, Community Room, Potomac Branch, Prince William County Library, Opitz Blvd., Woodbridge, VA. Entering Woodbridge from either North or South on Route 1, proceed to the intersection of Route 1 and Opitz Blvd. (opposite Woodbridge Lincoln-Mercury). Turn West on Opitz and take first left turn into the library's parking lot. The Community Room is located toyour left immediately upon entering the main building. Meeting schedule: Dec 12, Jan 16, Feb 27.

NEW MEMBERS: Initial membership fee is $10 plus $1 monthly dues. Renewals are $20 per year, payable as of 1 January. Membership includes a subscription to CURRENT NOTES. Join at meeting or send check, payable to WACUG, to Kitty Parker, 3229 Bethel Church Rd., Woodbridge, VA 22192.

M.A.C.C.: Maryland Atari Computer Club

President	Jim Hill	301-461-7556
Vice President	Dan Honick	301-356-6453
Treasurer	John Cromwell	301-356-6453
Secretary	Bob Brent	301-254-3896
8bit Librarian	Jim Hill (acting)	
ST Librarian	Tim Caldwell	301-687-1413
Newsletter Ed	Charles Smeton	301-465-8628

MEETINGS: last Tuesday, 6:30 pm, Pikesville Library, 1 mi. east on Reisterstown Rd from Exit 20 off the Baltimore Beltway.

NEW MEMBERS: Club Dues are $22/year and include a subscription to CURRENT NOTES. Join at meeting or send check, payable to MACC, to James Hill, 8591 Wheatfield Way, Ellicott City, MD, 21043.

M.A.S.T.: Meade Atari ST Users Group

President	Bob Johnson	301-674-8762
Vice Pres	Keith Drewke	301-551-2662
Secretary	John Corkran	301-255-1674
PD Librarian	Harold Beck III	301-672-1793
Tangent Line BBS	Thomas Hutchinson	301-850-5045

MEETINGS - Third Tuesday of each month at the Province Branch Library at the intersection of Ridge Rd/Rochenbach Rd and MD 175 in Odenton at the rear of the Severn Square shopping center. The meetings run from 6:30 to 9:00 pm.. Call Bob Johnson any evening for further information.

MAILING ADDRESS: All correspondence, including membership renewals, changes ofaddress, etc. should be sent to: MAST, c/o Bob Johnson, 1616B Forrest Ave, Ft Meade, MD 20755.

NEW MEMBERS. Dues are $27/year and include subscription to CURRENT NOTES and unlimited DL and message activity on the Tangent Line BBS. Send name, address, phone number, and check to above address or join at any meeting.

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I certify that the statements made by me above are correct and complete: Joe Waters

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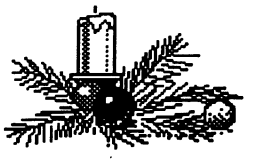

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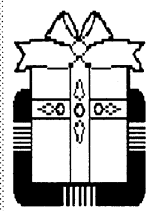

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